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PART II – PROGRAM PLANNING AND ASSESSMENT

Indian Health Service
FY 2003 Performance Plan
FY 2002 Revised Final Performance Plan
and FY 2001 Performance Report

January 31, 2002

Congressional Justification Submission

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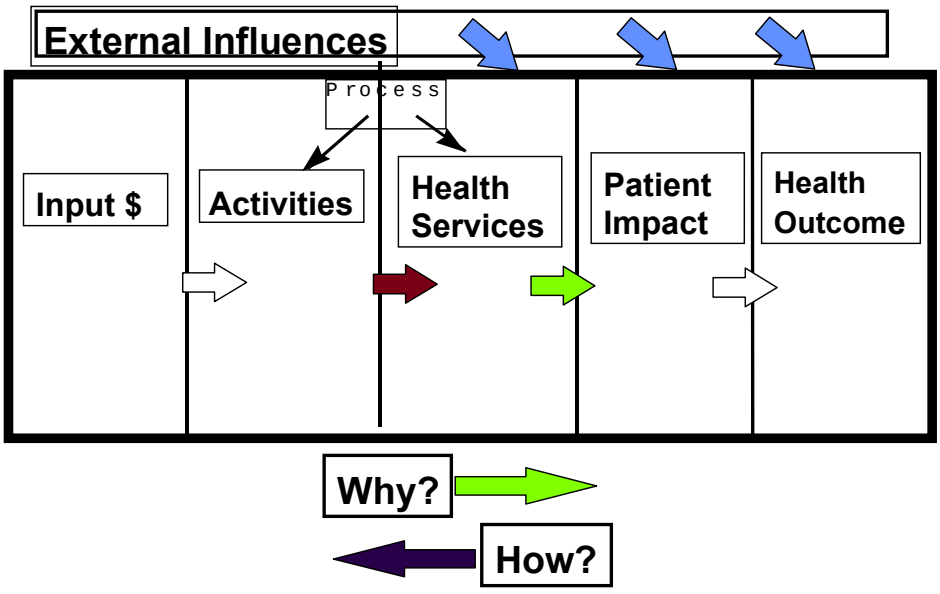
It must be borne in mind that the tragedy of life doesn't lie in not reaching your goal. The tragedy lies in having no goal to reach. It isn't calamity to die with dreams unfulfilled, but it is a calamity not to dream. It is not a disaster to be unable to capture your ideal, but it is a disaster to have no ideal to capture. It is not a disgrace not to reach the stars, but it is a disgrace to have no star to reach for. Not failure, but low aim is sin.

Benjamin Mays

Introduction and Rationale

The diagram that follows has been used the past several years to explain the GPRA process and shows that it is essentially the same as the public health approach the IHS has long followed in health planning and evaluation. The logic of this model links resources to activities or "process" (both support and direct health services) which leads to reductions in risk factors for diseases and conditions (i.e., impact) and over an extended period of time results in improved health outcomes. The model also depicts how external influences such as economic status (see Section 1.4, *The Role of Poverty*) isolation, or social norms can have powerful effects on the success of interventions, particularly in addressing lifestyle related health outcomes.

The Public Health/GPRA Approach



In light of this conceptual model, three broad categories of indicators are of relevance.

Process Indicators:

Indicators that assess the quantity or quality of activities that have the potential to contribute, at least indirectly, to reduced mortality or morbidity in the population over time.

Process indicators include activities such as the construction of clinics, identification of the prevalence of a disease or condition, implementation of consumer satisfaction surveys, and the provision of some health services (i.e., services for which the link to improved health outcomes has not been consistently demonstrated). These are important activities that may be essential to running an effective health care program, but do not necessarily result in improved health outcomes. The GPRA represents a process requirement, and committing to comply with these requirements represents a process indicator. (See Activities and Health Services boxes in diagram.)

Impact Indicators:

These are indicators that assess the quantity or quality of activities that have a scientific evidenced-based link to improved health outcomes usually by a demonstrated reduction in a recognized risk factor of mortality or morbidity in a population. These indicators are referred to as "interim outcomes" in much of the GPRA literature. They include activities such as immunizations, dental sealants, assuring safe drinking water, and cancer screenings. Over time these activities result in improved morbidity and/or mortality. Impact indicators are usually the most appropriate type of indicator for annual performance plans because they provide the most measurable link between funding and results. (See Patient Impact box in diagram.)

Outcome Indicators:

These are indicators that directly relate to reducing mortality or morbidity relative to a disease or condition that program(s) address. While these indicators are the ultimate goal of health care, for many health conditions it is often years before outcome benefits are realized. Furthermore, identifying the cost of an observed outcome is often difficult or impossible in the cases of conditions that multiple providers may be addressing simultaneously while addressing other health conditions. Thus, outcome indicators are usually not the most appropriate choice for annual performance plans, but are essential to identify for long-term goals such as in the GPRA Strategic Plan. Examples include reducing the prevalence of obesity, diabetic complications or reducing the unintentional injury mortality rate. (See Health Outcome box in diagram.)

It is appropriate to note that general workload types of indicators such as total outpatient visits and inpatient days are not included in this performance plan because any meaningful link to health outcomes is indirect or circuitous, at best. As noted earlier, outpatient visits have grown with population growth rather than varied with level of funding. Inpatient days have been declining across the country as well as in the I/T/U care systems to control costs and neither of these measures have shown an interpretable correlation with improved health status. However, these data will continue to be monitored and presented to the Department as part of the IHS annual accountability report because they are of significance in the context of expenditures and demands on the I/T/U system.

The IHS performance indicators represent sentinel indicators that are specifically focused on the most significant health problems affecting AI/ANs and/or the essential services that address them and identified by local I/T/Us. These problems include: diabetes, alcohol and substance abuse, cancer, dental diseases, mental health, heart disease, family abuse and violence, injuries, poor

living environment, mental health, tobacco use, obesity, environmental hazards, and the unique health problems of elders, women and children. They all represent important links in the GPRA/public health process directed towards outcomes. Some represent primary prevention that attempts to prevent a disease or condition before it occurs (e.g., immunizations or controlling weight to prevent heart disease or diabetes). Others are "secondary preventive" in nature in that they attempt to reduce the morbidity and mortality associated with a disease or condition after it has occurred (e.g., access to dental care or breast cancer screening). Given that there will always be ten leading causes of death, our focus is to intervene early in the processes that contribute significantly to mortality and morbidity, rather than to target end point problems such as heart attacks and stroke. This is the essence of the cost-effective public health approach that has resulted in the improvements in health status of AI/AN people over the last three decades.

We have also included indicators for improving how our consumers perceive the quality of and access to services, how employees perceive the quality of their work-life, and how our stakeholders perceive our performance in assuring adequate consultation and advocating for their needs. In addition, several indicators address expanding our information technology capacity to improve health care delivery and performance management.

The indicators in this plan do not represent the complete spectrum of activities and challenges the Agency and the I/T/Us address as part of a comprehensive public health organization. To do so would probably require several hundred indicators and require significant increases in resources just to collect the data. Consistent with the proposed GAO guidance, these indicators are limited to a vital few, represent multiple priorities, are linked to the responsible programs, and in many cases are measures we have used for many years for program evaluation. Several are focused primarily on better defining the magnitude of certain problems and improving our evaluation capability.

A major challenge in selecting indicators for a one-year plan is that many of the processes necessary for intervening in complex chronic diseases require years or decades of focused efforts to realize significant progress, even with significant resource enhancements. Therefore, only a few of these indicators directly address health outcomes, while most are incremental activities that will lead to such outcomes over time. Finally, all health-problem related indicators support the HHS HP 2010 goals, and all indicators and the entire plan support the Department's recently revised Strategic Plan.

However, these indicators were developed in partnership with Area and I/T/U staff and AI/AN tribal leaders with the first priority being the need to reflect the problems and strategic activities of the I/T/Us collectively. We believe this approach is essential to secure the high level of collective support we will need with our diverse and decentralized programs. Because of the diversity across I/T/Us and the freedom of tribal programs to participate in GPRA activities at their discretion, not all indicators will be of priority to all I/T/Us. Furthermore, there are activities that are not included in these indicators that will continue to be priorities, particularly health issues unique to local I/T/Us.

Application of the Balanced Scorecard Conceptual Model to Health Performance Measures

The IHS has elected to incorporate a modification of the Balanced Scorecard conceptual model as an additional classification of each indicator under the subheading "Type of Indicator." Based on this model originally proposed by Robert Kaplan and David Norton in their seminal article in the *Harvard Business Review* in 1992, it is essential for each company to address performance measurement by answering four basic questions:

1. How do customers see us (customer perspective)?
2. What must we excel at (internal perspective)?
3. Can we continue to improve and create value (innovation and learning perspective)?
4. How do we look to shareholders (financial perspective)?

While this model was designed to fit the context of profit-oriented companies, we contend that with slight modification it has significant utility in a Federal agency such as the IHS. Clearly the first question has relevance for the IHS as a health care organization. The IHS Goal, presented on page five, addresses the availability and acceptability of culturally acceptable health services. Indicator 21 relates to a consumer satisfaction survey designed to capture the critical elements of health care consumer satisfaction that have been identified in the related literature. Additionally, Indicator 37 assesses I/T/U stakeholders (internal customers) satisfaction with the consultation process relative to budget and policy issues.

The second question targets the critical internal capabilities that are essential to meeting customer demands as well as the long-range mission-critical operations of an organization. For the IHS this clearly relates to our ability to efficiently and effectively provide comprehensive health services that many of our indicators are based on. In addition, it is critical that we also address support functions such as securing health care and health status data, building and maintaining facilities, and developing appropriate management structures. Thus, the majority of indicators in this plan address this question.

The third question addresses our ability to learn and grow as an organization and has tremendous significance for the IHS because some of the health problems we face have yet to be solved anywhere in the world in a public health setting. Thus, indicators that pilot new technologies and approaches to such problems as obesity and diabetes (Indicator 29) represent field research and intervention technology development. Similarly, indicators addressing suicide prevention, personal and organizational fitness, and tobacco control represent learning and applying technologies proven effective from other settings to the unique environments across Indian Country (applications research).

The final question relates to financial success or profitability and in essence is a look back at how the business has worked in the past. On the surface the notion of profitability is perhaps more difficult to apply to a Federal public health agency such as the IHS, since profit is not part of our focus. However, we would contend that the analogous currency of profitability to a public health organization would be improvements in the health status of the served population brought about by the efficient and effective delivery of high quality health care. In this context public

health profitability is a look back at what has been accomplished in terms of improving health status and an analysis of the cost and relative productivity in providing services.

It is worth noting that this view of "public health profitability" is virtually the same construct as the Public Health/GPRA Approach outlined earlier in this section, or more globally, the essence of GPRA itself for public health. As will be pointed out several times in this plan, it is often not possible to show "public health profitability" in a one-year period when dealing with chronic diseases. Therefore few indicators in this plan address the outcome issue, but focus on reducing the risk factors as describe earlier in the description of "impact indicators."

The utility of applying the Balanced Scorecard in the context of planning and evaluation in the IHS is similar to the benefits realized in the private sector. It guides our focus to not only look back on what we have accomplished, how our consumers feel about it, and to determine what things to continue, but also where we need to move in the future and what capabilities we must develop or purchase to get there. Perhaps this process of finding the ideal balance in making future resource decisions is the most challenging part of public health. Investing in "potential" versus the "proven" is usually a risky process but the use of the Balanced Scorecard can assist in making such decisions consciously with the best available information. Over time, we believe the use of the Balanced Scorecard can enhance the effectiveness of our GPRA process.

Budget and Program Aggregation

Because of the number and diversity of IHS health programs, these activities can be organized in many different ways. Our goal in presenting our performance measures is to relate, to the best of our ability, performance to our budget. This is a serious challenge to the IHS for several reasons we will articulate. We have selected an aggregation approach largely based on the way our programs are managed and have selected four functional areas for the aggregation of the 24 budget categories identified in the IHS Detail of Changes Table: 1) Treatment, 2) Prevention, 3) Capital Programming/Infrastructure, and 4) Consultation, Partnerships, Core Functions, and Advocacy. While this approach may appear to be an overly simplistic "lumping" of categories, it is important to realize that there is no aggregation or disaggregation that allows mutually exclusive activities linked to mutually exclusive health problems.

This conundrum exists because addressing most chronic diseases and problems such as diabetes, injuries, and family violence requires multidisciplinary interventions to be successful. In such cases, there may be several health programs (and thus funding categories) simultaneously addressing a health problem such as diabetes. Confounding the issue further, these same diverse providers may be addressing other health issues such as tobacco use, blood pressure control, or mental health during the same encounter. Lastly, tribal programs, which now manage over 50% of the total IHS budget, have the legal flexibility to reprogram funding categories to meet their identified health priorities and likewise use an accounting tailored to their needs and preferences. As a result, with the exception of the facilities construction category, tribes tend to use resources based on individual tribal priorities and the link between named categories in the IHS budget and how the funds are actually used in tribal programs may not be highly correlated.

Thus, for tribal programs the aggregation issue is probably moot. For IHS managed programs, aggregation of budget categories that not only splits out activities and funding sources but also

allows a valid cost accounting link to health outcomes cannot be provided. In such cases, the accounting link can go no farther than services. A manufacturing type of accounting mindset taken to an extreme simply does not fit well in the context of a comprehensive public health program. Therefore, the aggregation approach we have selected seems reasonable given the limitations of any approach and that we do have the option to disaggregate these inputs if desired for a more narrowly focused look at well circumscribed programs such as dental services or public health nursing.

There is no priority order to these categories and all are important in accomplishing the mission of the IHS. Chart II that follows shows the relationship between the funding categories in IHS Detail of Changes Table and the appendix of the "Budget of the United States" and our GPRA aggregation. A brief explanation of the components of each aggregation category precedes each set of performance indicators.

Chart II
Budget Category Aggregation

INDIAN HEALTH SERVICE Detail of Change Table	APPENDIX Budget of the United States items from left column	GPRA AGGREGATION items from left column
SERVICES:	**SERVICES:**	
1 Hospitals & Health Clinics		
2 Dental Services		**1. Treatment (1,2,3,4,5,10,11,12,14,15)**
3 Mental Health		
4 Alcohol & Substance Abuse		**2. Prevention (6,7,8,9,19b)***
5 Contract Health Services		
Total, Clinical Services	**1 Clinical Services (1-5)**	**3. Capital Programming/ Infrastructure (16-20)****
6 Public Health Nursing		
7 Health Education		**4. Partnerships, Consultation, Core Functions, and Advocacy (13,19a-c)*****
8 Comm. Health Reps		
9 Immunization AK		
Total, Prev Hlth	**2 Preventive Health (6-9)**	*The Prevention category includes 35% of Environmental Health Support (19b) activities.
10 Urban Health	**3 Urban Health (10)**	
11 Indian Health Professions	**4 Indian Health Professions (11)**	**The Capital Programming/Infrastructure category includes 80% of Facilities Support (19a), 60% of Environmental Health Support (19b), and 20% of OEHE Support (19c) activities.
12 Tribal Management	**5 Tribal Management (12)**	
13 Direct Operations	**6 Direct Operations (13)**	
14 Self Governance	**7 Self Governance (14)**	***The Partnerships, Consultation, Core Functions, and Advocacy category includes 20% of Facilities Support (19a), 5% of Environmental Health Support (19b), and 80% of OEHE Support (19c) activities.
15 Contract Support Costs	**8 Contract Support Costs (15)**	
Total, Services	**Total, Services**	
FACILITIES:	**FACILITIES:**	
16 Maint. & Improvement	**9 Maint. & Improvement (16)**	
17 Sanit. Facil. Constr.		
18 Hlth Care Facs. Constr.	**10 Hlth Care Facs. Constr. (17-18)**	
19 Facil. & Envir. Hlth Sup	**11 Facil. & Envir. Hlth Sup (19a-c)**	
19a Fac. Support		
19b Env. Health Support		
19c OEHE Support		
20 Equipment	**12 Equipment (20)**	
Total, Facilities	**Total, Facilities**	
(20) Total, IHS	**(12) Total, IHS**	**(4) Total, IHS**

Budget Category Aggregation
Crosswalk to FY 2003 Budget Request

	Category/Sub-sub activity	FY 2003 Request
	TREATMENT	
1	Hospitals & Health Clinics	1,230,147,000
2	Dental Services	104,901,000
3	Mental Health	52,499,000
4	Alcohol and Subtance Abuse	138,800,000
5	Contract Health Services	468,130,000
10	Urban Health	31,620,000
11	Indian Health Professions	35,483,000
12	Tribal Management	2,406,000
14	Self-Governance	10,138,000
15	Contract Support Costs	270,734,000
	M/M and PI Collections (85%)	432,516,000
	Diabetes	100,000,000
	Total	$2,877,374,000
	PREVENTION	
6	Public Health Nursing	41,639,000
7	Health Education	11,283,000
8	Community Health Representatives	50,774,000
9	Immunization AK	1,556,000
19b	Environmental Health Support (35%)	20,135,000
	Total	$125,387,000
	CAPITAL PROGRAMMING/ INFRASTRUCTURE	
16	Maintenance & Improvement	47,331,000
17	Sanitation Facilities	95,185,000
18	Health Care Facilities Construction	72,000,000
19a	Facilities Support (80%)	56,314,000
19b	Environmental Health Support (60%)	34,518,000
19c	OEHE Support (20%)	2,349,000
20	Equipment	16,294,000
	M/M and PI Collections (15%)	76,326,000
	Quarters	5,916,000
	Total	$406,233,000
	PARTNERSHIPS, CONSULTATION, CORE FUNCTIONS, AND ADVOCACY	
13	Direct Operations	63,558,000
19a	Facilities Support (20%)	14,078,000
19b	Environmental Health Support (5%)	2,877,000
19c	OEHE Support (80%)	9,394,000
	Total	$89,907,000

2.1.1 Treatment and Prevention Categories: Program Description, Context and Summary of Performance

Program Description and Context

Treatment and Prevention indicators have been combined in this section for several reasons including:

- the distinction between treatment and prevention is often blurred
- many health care programs provide both kinds of services
- approximately 90% of IHS resources are directed towards these activities
- monitoring for both is usually accomplished from the same data systems

In essence, prevention and treatment are our business and virtually all other activities are supportive to them. Thus, most of these indicators directly support the Secretary's FY 2003 Prevention Budget Priority while several support the priority for Mental Health. Combined they are the essence of IHS Strategic Objective 2: Provide Health Services and the means to accomplishing our Mission and Goal and IHS Strategic Objective 1: Improve Health Status. The indicators directly address the structure, process, and outcome of treatment and preventive services. While some of these measures such as the dental indicators 12 -14 and public health nursing indicator 23 can be closely linked to the funding request, most are less directly evident in their linkage to funding because they represent activities performed by staff from multiple disciplines who address multiple health problems. For a more detailed discussion of the limitations in funding linkages with indicators, see *Budget and Program Aggregation* on page 42 and Section A.4 on page 147 in the appendix of this document.

Ultimately, our performance in treatment and prevention activities will determine our level of success in improving the health of the AI/AN population. But setting one-year performance targets linked to funding is not a precise science. Several of the treatment and prevention targets for FY 2002 remain in question because of the continued difficulties in recruitment and retention of critical health care providers. Our ability to recruit additional health care providers and having the needed clinical space available to utilize them efficiently may not be realized in a single year. In some cases, investments in the supportive infrastructure are the highest priority for long-term effectiveness but will contribute no measurable benefit in the short-run to increase access to services.

Based on the proposed IHS funding for FY 2003, many health care related indicators have no target level increases over FY 2002. Given population growth of over 2% annually and the rising cost of providing services, these are challenging targets. But it is important to note that these levels of care are not likely to reverse the downward trend in health status of the AI/AN population outlined in Chart 1 on page 11 of this document.

For a more detailed discussion of the issues influencing performance accomplishment see the *FY 2001 Performance Summary* section beginning on page 26. In addition, a performance summary table precedes each section of indicators and the description of each individual indicator includes an assessment of performance achievement for FY 2001. The budget categories and programs

that make up the Treatment and Prevention categories, along with their page reference in the budget are now presented:

Treatment Aggregation

Hospitals and Clinics - supports inpatient and ambulatory care and support services such as nursing, pharmacy, laboratory, nutrition, medical records, etc (see page IHS-35 in FY 2003 budget document).

Dental Services - supports the provision of dental care through clinic based treatment and prevention services and community oral health promotion and disease prevention activities including water fluoridation and dental sealants (see page IHS-47 in FY 2003 budget document).

Mental Health - supports community oriented clinical and preventive mental health and social services programs (see page IHS-55 in FY 2003 budget document).

Alcohol and Substance Abuse - supports the efforts of tribes in the provision of holistic alcoholism and other drug dependency treatment, rehabilitation, and preventive services for individuals and families (see page IHS-65 in FY 2003 budget document).

Urban Indian Health - supports contracts and grants to 34 urban health programs funded under Title V of the Indian Health Care improvement Act (see page IHS-115 in FY 2003 budget document).

Indian Health Professions - supports self-determination and access to health care through efforts to enable AI/AN to enter health professions, and effective recruitment of health staff by providing scholarships, loan repayment, temporary employment, and health professions recruitment (see page IHS-119 in FY 2003 budget document).

Self-Governance- supports the Office of Tribal Self-Governance and Self-Governance Planning and Negotiating grants. (see page IHS-137 in FY 2003 budget document).

Contract Support - provides administrative costs for tribal managed programs in addition to what would have been provided under the direct provision of the program as authorized under Section 106(a) (2) of P.L. 93-638, the Indian Self-Determination Act, as amended (see page IHS-145 in FY 2003 budget document).

Prevention Aggregation

Public Health Nursing - supports the community-based Public Health Nursing program which provides treatment, counseling, health education, and referral activities carried out in such setting as homes, schools, jails, bars, and community centers in conjunction with a diversity of other health care providers (see page IHS-93 in FY 2003 budget document).

Health Education - supports activities directed towards promoting healthy lifestyles, community capacity building, and the appropriate use of health services through public health

education targeted at school health, employee health promotion, community health, and patient education (see page IHS-99 in FY 2003 budget document).

Community Health Representative - supports the tribally administered program of training AI/AN community members in basic disease control and prevention. These activities include serving as outreach workers with the knowledge and cultural sensitivity to effect change in community acceptance and utilization of health care resources and use community-based networks to enhance health promotion/disease prevention activities (see page IHS-105 in FY 2003 budget document).

Alaska Immunization Program - supports the Alaska immunizations program to address hepatitis and haemophilous influenzae through collaboration with the CDC (see page IHS-109 in FY 2003 budget document).

Environmental Health Support - supports the IHS injury prevention program that coordinates and provides grants for primary preventive community-based collaborative programs using epidemiologically defined problem identification and evaluation methods (see page IHF-33 in FY 2003 budget document).

2.1.2 Treatment and Prevention: Performance Indicators

The choice of these indicators was made after considerable deliberation and "trial and error" over the past three years that has resulted in the acceptance of several selection criteria:

- they address major functional areas of our budget structure (i.e., major health programs)
- they represent I/T/U priority areas in terms of addressing health problems
- they are relatively passive to I/T/U providers in that they are extracted from existing data systems and do not add to their workload
- they do not reward under reporting of conditions (i.e., reducing complication of diabetes was dropped for this reason)
- they are evidenced-based and support recognized standards of care

While not all treatment and prevention indicators measure up to all these criteria, most come close. It is important to acknowledge that for many indicators, a measurable change in the ultimate outcome is not likely to be seen in the one-year time span of the performance plan. Similarly, the target levels that can be accomplished for many treatment and prevention indicators may not be related to funding levels in a simple linear relationship in a one-year period. Recruiting additional health care providers coupled with securing the needed clinical space to utilize them efficiently many require several years before significant improvements to access are realized. In some cases, investments in the supportive infrastructure are the highest priority for long-term effectiveness but will do little in the short-run to increase access to services.

The data that support the treatment and prevention indicators comes from several sources but the largest number are extracted from the IHS automated information system which collects data on the services provided by IHS and tribal direct and contract programs. In addition, the diabetes

treatment indicators 2-5 are extracted from the IHS Diabetes Audit that is an annual systematic audit of almost 10,000 charts.

The software used by IHS facilities and most tribal facilities is the Resource and Patient Management System (RPMS). Data are collected for each inpatient discharge, ambulatory medical visit, and dental visit (all patient specific) and for community health service programs including health education, community health representatives, environmental health, nutrition, public health nursing, mental health and social services, and substance abuse (all activities reporting systems). The patient-specific data are collected through the Patient Care Component (PCC) of the RPMS. For a discussion of data validation processes relative to this system and the diabetes audit, see Appendix A.1 on page 147.

Performance Summary Table 1:
Treatment Indicators

Performance Indicator	FY Targets	Actual Performance	Reference
Diabetes Group			
Indicator 1: Track Area age-specific diabetes prevalence rates (as a surrogate marker for diabetes incidence) for the AI/AN population.	**FY 03:** maintain data-base **FY 02:** maintain data-base **FY 01:** maintain data-base **FY 00:** maintain data-base **FY 99:** establish baseline	**FY 03:** **FY 02:** **FY 01:** 4/02 **FY 00:** data-base maintained **FY 99:** baseline established	**P:** p. 56 **B:** p. IHS-35 p. IHS- 151
Indicator 2: Increase the proportion of I/T/U clients with diagnosed diabetes that have improved their glycemic control.	**Ideal Glycemic Control** **FY 03:** maintain at FY 02 level **FY 02:** improve from FY 01* **FY 01:** improved from FY 00 **FY 00:** improved from FY 99 **FY 99:** 25% **Good Glycemic Control** **FY 99:** 38%	**FY 03:** **FY 02:** **FY 01:** 7/02 **FY 00:** 26% **FY 99:** 24% **FY 98:** 22% **FY 97**: 25% **FY 99:** 35% **FY 98:** 35% **FY 97**: 25%	**P:** p. 58 **B:** p. IHS-35 p. IHS-151 **New FY 2000 Data** ***** indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 3: Increase the proportion of I/T/U clients with diagnosed diabetes and hypertension that have achieved diabetic blood pressure control standards.	**Ideal Hypertension Control** **FY 03:** maintain at FY 02 level **FY 02:** maintain at FY 01 level* **FY 01:** improve from FY 00 **FY 00:** improve from FY 99 **FY 99:** 41%	**FY 03:** **FY 02:** **FY 01:** 7/02 **FY 00:** 35% **FY 99:** 36% **FY 98:** 38% **FY 97:** 27%	**P:** p. 60 **B:** p. IHS-35 p. IHS-151 **New FY 2000 Data** ***** indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 4 : Increase the proportion of I/T/U clients with diagnosed diabetes who have been assessed for dyslipidemia.	**LDL Cholesterol** **FY 03:** maintain at FY 02 level **FY 02:** improve from FY 01* **FY 01:** improve from FY 00 **FY 00:** improve from FY 99 **FY 99:** 32% **Total Cholesterol** **FY 99:** 82%	**FY 03:** **FY 02:** **FY 01:** 7/02 **FY 00:** 54% **FY 99:** 46% **FY 98:** 29% **FY 99:** 72% **FY 98:** 79% **FY 97**: 83%	**P:** p. 63 **B:** p. IHS-35 p. IHS-151 **New FY 2000 Data** . * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 5: Increase the proportion of I/T/U clients with diagnosed diabetes who have been assessed for nephropathy.	**FY 03:** maintain at FY 02 level **FY 02:** improve from FY 01* **FY 01:** improve from FY 00 **FY 00:** improve from FY 99 **FY 99**: 36%	**FY 03:** **FY 02:** **FY 01:** 7/02 **FY 00:** 41% **FY 99:** 36% **FY 98**: 33% **FY 97**: 36%	**P:** p. 64 **B:** p. IHS-35 p. IHS-151 . **New FY 2000 Data** * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Cancer Screening Group			
Indicator 6: Increase the proportion of women who receive Pap screening.	**Pap Screening** **FY 03:** maintain FY 02 level **FY 02:** +2% over FY 01 level **FY 01:** +3% over FY 00 level **FY 00:** +3% over FY 99 level **FY 99:** no indicator **Cervical Cancer** **FY 99:** determine incidence of cervical cancer	**FY 03:** **FY 02:** **FY 01:** 4/02 **FY 00:** 4/02 **FY 99:** baseline not adequate **FY 99:** 8-10 per 100,000 based on 40% of AI/AN	**P:** p. 66 **B:** p. IHS-35 .

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 7 Increase proportion of the AI/AN female population over 40 years of age who receive screening mammography.	**FY 03:** maintain FY 02 level **FY 02:** +2% over FY 01 level **FY 01:** +2% over FY 00 level **FY 00:** +3% over FY 99 baseline **FY 99:** establish baseline	**FY 03:** **FY 02:** **FY 01:** 4/02 **FY 00:** 4/02 **FY 99:** baseline not adequate	**P:** p. 67 **B:** p. IHS-35
Well Child Care Indicator			
Indicator 8: Increase the proportion of AI/AN children receiving a minimum of four Well Child Visits by 27 months of age and expand coverage.	**FY 03:** maintain FY 02 level **FY 02:** +1% over FY 01* **FY 01:** +2% over FY 00 **FY 00:** +3% over FY 99 **FY 99:** establish baseline	**FY 03:** **FY 02:** **FY 01:** 4/02 **FY 00:** 4/02 **FY 99:** 38.5% baseline	**P:** p. 69 **B:** p. IHS-35 p. IHS-93 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Alcohol and Substance Abuse Group			
Indicator 9: Maintain the rates and intensity of follow-up for adolescents discharged from IHS supported Regional Treatment Centers (RTC) to assure reduced rates of alcohol and drug use.	**RTC Assessment Criteria** **FY 03:** +5% over FY 02 for 4 criterion **FY 02:** establish RTC baseline for 4 criterion* **Follow-up Rates** **FY 03:** no indicator **FY 02:** no indicator **FY 01:** FY 00 level or higher **FY 00:** 45% (+10% over FY 99 for 3 follow-ups by 12 months post discharge) **FY 99:** establish baseline **Abstinence** **FY 03:** no indicator **FY 02:** no indictor **FY 01:** +5% over FY 00 **FY 00:** no indicator	**FY 03:** **FY 02:** **FY 03:** **FY 02:** **FY 01:** 60% **FY 00:** 48% % -12 mos (+17%) **FY 99:** 40.9% **FY 01:** no reliable data source **FY 00:** no reliable data source	**P:** p. 70 **B:** p. IHS-65 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 10: Expand the percentage of I/T/U prenatal clinics utilizing screening and case management protocols for pregnant substance abusing women and advocate to expand usage.	**FY 03:** Maintain FY 02 level **FY 02:** + 2% over FY 01* **FY 01:** + 10% over FY 00 **FY 00:** +5% over FY 99 **FY 99:** establish baseline	**FY 03:** **FY 02:** **FY 01:** 94.7%(+7.1% over FY 00) **FY 00:** 87.6% (+9.2% over FY 99) **FY 99:** 78.4%	**P:** p. 72 **B:** p. IHS-65 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.

Performance Indicator	FY Targets	Actual Performance	Reference
Oral Health Group			
Indicator 11: Increase access to optimally fluoridated water for the AI/AN population.	**FY 03:** 5% over FY 02 for AI/AN pop. receiving fluor. water **FY 02:** 5% over FY 01 for AI/AN pop. receiving fluor. water* **FY 01:** 10% over FY 00 for demo Areas 5% over FY 00 for other Areas **FY 00:** 15% over FY 99 for demo Areas **FY 99**: no indicator	**FY 03:** **FY 02:** **FY 01:** 28% over FY 00 for demo Areas Same % FY 00 for other Areas **FY 00:** 18 systems in compliance (38% increase) **FY 99**: 13 systems in compliance for demo Areas or 2%	**P:** p. 74 **B:** p. IHS-47 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 12: Increase annual access to dental services for the AI/AN population.	**FY 03:** at FY 02 level **FY 02:** 27.3% **FY 01:** 27% **FY 00:** 23% **FY 99**: 21%	**FY 03:** **FY 02:** **FY 01:** 26.3% **FY 00:** 25.1% **FY 99:** 25.1% **FY 98:** 24.5% **FY 97:** 22%	**P:** p. 77 **B:** p. IHS-47
Indicator 13: Increase the percentage of AI/AN children 6-8 and 14-15 years who have received protective dental sealants on permanent molar teeth.	**FY 03:** at FY 02 level **FY 02:** +2.5% over FY 01 total sealants placed* **6-8 yrs** **FY 01**: +3% over FY 00 **FY 00**: +3% over FY 99 **FY 99**: 50% (36.1% recalculated.) **14-15 yrs** **FY 01**: +3% over FY 00 **FY 00**: +3% over FY 99 **FY 99**: 58% (59% recalculated)	**FY 03:** **FY 02:** **FY 01:** 45.6% (1.5+ %) **FY 00:** 44.1% (+ 4.5%) **FY 99:** 39.6%[1] **FY 91**: 40.1% corrected baseline **FY 01:** 51.5% (+2.4 %) **FY 00:** 49.1% (-15.9%) **FY 99:** 65.0%[1] **FY 91:** 66.5% corrected baseline	**P:** p. 79 **B:** p. IHS-47 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 14: Increase the proportion of the AI/AN population diagnosed with diabetes that obtain access to dental services annually.	**FY 03:** 2% increase over FY 02 **FY 02:** 2% increase over FY 01 **FY 01:** no indicator **FY 00:** no indicator **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** **FY 00:** 32% **FY 99:** 30%	**P:** p. 82 **B:** p. IHS-47
Family Abuse, Violence, and Neglect Indicator			
Indicator 15: Increase the % of I/T/U medical facilities with Urgent Care or Emergency departments or services that have written policies and procedures for routinely identifying, treating and/or referring victims of family violence, abuse or neglect (i.e., child, spouse, elderly) and train staff in their use	**Staff Training** **FY 03:** 60% **FY 02:** 56% **FY 01:** no indicator **FY 00:** no indicator **FY 99:** no indicator **Policies and Procedures** **FY 03:** 85% **FY 02:** 82% **FY 01:** 80% **FY 00:** 70% **FY 99:** 60% **Data Code** **FY 03:**develop standard data code **FY 02:** no indicator	**Staff Training** **FY 03:** **FY 02:** **FY 01:** **FY 00:** 54% (baseline) **Policies and Procedures** **FY 03:** **FY 02:** **FY 01:** 82% **FY 00:** 72% **FY 99:** 64% **FY 98:** 47% (baseline) **Data Code** **FY 03:** **FY 02:**	**P:** p. 83 **B:** p. IHS-55 p. IHS-35
Information Technology Development Group			
Indicator 16: Expand the automated extraction of GPRA clinical performance measures by developing test sites to assess and improve data quality.	**FY 03:** a. complete baseline of initial measures b. automate new measures c. distribute automated mapping tools to all I/T/Us **FY 02:** assess 5 sites for 5 performance measures **FY 01:** setup 5 sites for testing 5 performance measures **FY 00:** no indicator **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 5 sites for testing 5 performance measures established	**P:** p. 86 **B:** p. IHS-83

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 17: Expand the number of I/T/U programs that have implemented the use of the Mental Health/Social Services (MH/SS) data reporting system or submit minimum data elements.	**Expand MH/SS Use** **FY 03:** +5% use over FY 02 **FY 02:** +5% use over FY 01 **FY 01:** +10% use over FY 00 **FY 00:** +10% use over FY 99 **FY 99:** 50% reported **Submit Minimum Data Set** **FY 03:** 50% submit minimum data **FY 02:** no indicator	**FY 03:** **FY 02:** **FY 01:** +12.1% increase** **FY 00:** +24.7% increase** **FY 99:** 51% reported **FY 98:** 40-45% baseline est. **FY 02:** no accepted data set	**P:** p. 89 **B:** p. IHS-55 ** Data now based on actual use rather then reported use. See Program Performance section of Indicator 17 on page 91 for details.
Indicator 18: Develop the specifications and implementation plan for an automated information system, which captures health status, and patient care data for Indian Urban health care programs and implement at field urban sites.	**FY 03:** +2 sites over FY 02 level **FY 02:** +2 sites over FY 01 level* **FY 01:** implemented in 30% of urban programs **FY 00:** test in at least one site **FY 99**: develop specs and plan	**FY 03:** **FY 02:** **FY 01:**32% (11 of 34) of urban programs **FY 00:** tested in several sites **FY 99:** accomplished 8/99	**P:** p. 92 **B:** p. IHS-115 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Quality of Care Group			
Indicator 19: Maintain 100% accreditation of all IHS hospitals and outpatient clinics.	**FY 03:** 100% **FY 02:** 100% **FY 01:** 100% **FY 00:** 100% **FY 99**: 100%	**FY 03:** **FY 02:** **FY 01:** 100% **FY 00:** 100% **FY 99:** 100% **FY 98:** 100% (baseline)	**P:** p. 93 **B:** p. IHS-35 p. IHF-147
Indicator 20: Implement medication error reporting system to reduce medication error.	**FY 03:** Assess baseline and establish pilot sites **FY 02:** survey current systems **FY 01:** no indicator	**FY 03:** **FY 02:** **FY 01:**	**P:** p. 94 **B:** p. IHS-35 * indicates new FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 21: Improve AI/AN consumer satisfaction with the acceptability and accessibility of health care as measured by IHS consumer satisfaction survey.	**FY 03:** establish baseline **FY 02:** secure OMB clearance* **FY 01:** secure OMB clearance **FY 00:** Federal clearance and establish baseline **FY 99**: develop instrument and protocol	**FY 03:** **FY 02:** **FY 01:**waiting final OMB approval **FY 00:** submitted but clearance not completed **FY 99:** instrument and protocol complete	**P:** p. 95 **B:** p. IHS-35 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Total Treatment Funding:	**FY 03: $2,877,374,000*** **FY 02:** $2,814,133,000* **FY 01:** $2,667,709,000* **FY 00:** $1,931,326,000 **FY 99:** $1,811,951,000 **FY 98:** $1,711,018,000 *includes 85% of M/M and PI collections, Diabetes, and accrual costs		**P:** page # in perform. plan **B:** page # in budget justif.

A. FY 2003 Treatment Indicators:

Diabetes Group:
The following five indicators address the ongoing monitoring and treatment of diabetes in the AI/AN population. Diabetes continues to be a growing problem in many AI/AN communities with rates increasing rapidly in several Areas, age at diagnosis occurring at younger ages, and no signs of decline in any Area. The impact of this disease in terms of individual and family suffering is immense, as are the treatment costs to the Indian health delivery systems. The treatment indicators (2-5) were selected because of their proven benefits in reducing the morbidity and mortality associated with this condition.

Performance targets for the FY 2003 indicators 2-5 are set at the same level as FY 2002. The inflationary costs of treatment, including the sharp increase in the cost of medications will limit the ability to improve the outcomes of these indicators. The ability to maintain performance on these indicators will also be dependent on the Special Diabetes Program for Indians (SDPI) resources which may offset the funding shortfall in some Areas.

In FY 2001, 333 diabetes grant programs received supplemental funds (Special Diabetes Program for Indians, PL. 105-33) to support their diabetes initiatives. In their application for the supplemented funds, each program included a self- assessment activity and identified the particular diabetes best practices that would be implemented as part of their program. The diabetes grant programs have the option, based on their respective community assessment and need, to utilize their local SDPI resources for prevention and/or treatment. The Diabetes Prevention Program, a NIH funded multi-center trial, ended early and announced significant findings that type 2 diabetes can be prevented or delayed with moderate lifestyle changes and/or medication use. These results, along with the alarming increase of diabetes in young AI/AN people, have impacted the focus many diabetes grant programs have chosen to take. Two thirds of the programs have identified diabetes prevention in youth as a priority and are focusing more resources towards primary prevention. Consequently, there is likely to be very limited new resources directed towards clinical care and drug costs.

> **Indicator 1: During FY 2003, continue tracking (i.e., data collection and analyses) Area age-specific diabetes prevalence rates to identify trends in the age-specific prevalence of diabetes (as a surrogate marker for diabetes incidence) for the AI/AN population.**

Rationale: This indicator is an essential part of monitoring progress of ongoing efforts in the treatment and prevention of diabetes. Though incidence rates of diabetes (occurrence of new cases within a certain time period) are very difficult and expensive to collect, and are only done reliably in large, population-based studies, trends in age specific prevalence rates of diabetes can provide evidence of an increase or decrease in diabetes for a certain age group and may suggest a change in true incidence. Analysis of these trends will allow the program and I/T/Us to target prevention efforts to specific age groups and locations in ongoing and future interventions.

Approach: The IHS Office of Public Health is responsible for overall coordination of efforts to achieve this indicator. The IHS Diabetes Program estimates diabetes prevalence of diagnosed diabetes in American Indians and Alaska Natives seeking care in I/T/U facilities. Rates are calculated using the IHS automated record system (i.e., PCC/RPMS data), and are reported by geographic Area, gender, and age groups for adults. Three-year rates will be calculated to reduce variability. Three-year running rates (i.e., add the most recent year of data and drop the oldest year of data) will be used in trend analysis. Longitudinal studies of diabetes conducted in Pima Indians since 1965 have provided extensive information on the prevalence and incidence of diabetes in this tribal community. While there are several other tribal-specific diabetes epidemiological studies, none are to the depth of the Pima studies and they cover fewer than 10% of all tribes. Furthermore, there are no published studies on the growing problem of type 2 diabetes in American Indian youth, though there is extensive recognition by I/T/U providers that the age of diabetes onset is declining to younger adults and children. Local/tribal facilities can assess diabetes prevalence by using PCC registries and /or diabetes case registries, deriving baseline measures for their tribal communities. The IHS Diabetes Program and the IHS Chronic Disease Epidemiology Program can assist I/T/U facilities to enhance their PCC registries and/or other diabetes registries, as well as establish and organize systematic screening and data entry in order to better ascertain diabetes prevalence.

Emphasis will be placed upon the specific age groups identified for this measure.
Diabetes prevalence information will be collected, transformed into similar formats, and transferred to the CDC Division of Diabetes epidemiologist (interagency agreement between CDC and IHS) for analysis and adjusting. Reports will be created and disseminated to I/T/U's, other DHHS agencies, universities, and private foundations for use in identifying prevention strategies and resources.

Data Source: RPMS/PCC reports, Diabetes Registries RPMS/PCC reports. The prevalence rates are prepared for the AI/AN population by age based on patients diagnosed with and treated for diabetes and having at least one outpatient visit (active user) for the year being reported. The age groups reported are 0-19, 20-44, 45-64, and 65+. Data in RPMS represents about 90 percent of all tribes because there are some compact and contract tribes that do not provide data into RPMS.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by IHS/CDC agreements, and supports several HP 2010 objectives in Focus Area 5: Diabetes.

Program Performance: The FY 2001 data will be updated 4/02. The FY 2000 performance measure was to maintain the Area age-specific prevalence rates for diabetes and has been accomplished. Area age-specific diabetes prevalence rates have been prepared for the AI/AN population based on patients diagnosed with and treated for diabetes and having at least one outpatient visit during FY 1998. Rates are available by IHS Area and sex for 4 age groups (0-

19, 20-44, 45-64, and 65+). The chart below summarizes the prevalence of diabetes in the AI/AN population.

Prevalence (%)* of American Indians/Alaska Natives with Diagnosed Diabetes, by Age Group and IHS Service Area, 1998

Area	Age group				ALL
	<20	20-44	45-64	$65	
Alaska	**0.1**	**1.0**	**7.2**	**14.7**	**2.1**
California	**0.2**	**2.2**	**12.6**	**18.6**	**3.9**
Portland	**0.2**	**2.5**	**16.1**	**19.8**	**4.1**
Oklahoma	**0.2**	**3.7**	**17.9**	**19.3**	**5.7**
Navajo	**0.1**	**3.4**	**23.4**	**30.3**	**5.7**
Albuquerque	**0.1**	**4.9**	**28.8**	**31.7**	**7.3**
Aberdeen	**0.2**	**6.0**	**31.4**	**31.5**	**7.3**
Billings	**0.3**	**4.9**	**30.9**	**37.8**	**7.3**
Bemidji	**0.4**	**5.3**	**30.1**	**36.5**	**7.9**
Phoenix	**0.4**	**7.0**	**29.8**	**34.9**	**8.4**
Tucson	**0.5**	**8.0**	**34.3**	**31.3**	**9.4**
Nashville	**0.4**	**13.0**	**44.9**	**36.8**	**13.4**
ALL	**0.2**	**4.1**	**21.8**	**25.2**	**6.0**

Of greatest concern to IHS are the increases in prevalence seen in adolescents and youth. Compared with 1990 prevalence rates, the results show a 68% increase in diabetes prevalence in 15-19 year olds, a 47% increase in 20-24 year olds and a 50% increase in 25-34 year olds. Overall the increase in diabetes prevalence for <35 year old AI/AN from 1990 to 1998 was a startling 51%.

Indicator 2: During FY 2003, maintain the FY 2002 performance level for glycemic control in the proportion of I/T/U clients with diagnosed diabetes.

Rationale: This indicator is directed at reducing diabetic complications. Large clinical studies have demonstrated that glycemic control significantly reduces the incidence of complications related to diabetes. In addition, achieving better blood sugar control has been shown to significantly reduce the costs associated with caring for people with diabetes. Using Staged Diabetes Management treatment guidelines for diabetes clinical management has significantly improved glucose control in several Indian communities.

Glycemic control in the person with diabetes results from healthy lifestyle practices and when necessary, glucose lowering medications. Many new glucose- lowering medications have been introduced on the market for the past 7 years. These medications are potent and quite effective, and can be used in combination to achieve greater glucose lowering benefits than a single dose can provide. Large clinical trials have shown that the person with diabetes frequently requires 2-3 medications, and sometimes 4, to control blood glucose. Many I/T/U sites cannot afford to purchase these expensive medications and thus are unable to achieve the full glucose lowering benefit that may be possible through this method of glycemic control.

Approach: The IHS Diabetes Program conducts an annual medical record review of a random sample of nearly 12,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. Trends over time for I/T/U facilities, service units, Areas and IHS-wide are also constructed for selected indicators. Improvements in glycemic control will be reported for each year to provide trend analysis.

Glycemic control refers to how well the blood sugars are controlled in a person with diabetes. It is measured with a blood test called the Hemoglobin A1c that measures the average blood sugar for a 2-3 month period. The IHS Diabetes Care and Outcomes Audit process divides these levels of control into “Ideal” (<7%); “Good” (7.0-7.9%); “Fair” (8.0-9.9%); “Poor” (10-11.9%); “very Poor” (>12%) categories based on national diabetes care standards. These categories will be used in the GPRA process to determine improvements in glycemic control.

The IHS Diabetes Care and Outcomes Audit recently updated its criteria for glycemic control based on the American Diabetes Association guidelines recommending the use of Hemoglobin A1c (HbA1c) cutoffs to determine control at the "Ideal" level. Based on this new criterion, the IHS is adopting it as the basis for assessing this indicator.

The benefits of aggressive interventions to lower blood sugar in diabetics have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements may improve the performance of this indicator through the use of grants / cooperative agreements for special projects aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetes Consultants. Efforts to achieve this measure also include the negotiation of wholesale/at cost purchase of newer, more effective (but considerably more expensive) medications for AI/AN diabetic patients.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit Achievement of this indicator will be determined by calculating the mean Hemoglobin A1c of the entire diabetic population for a given audit year as well as dividing these data into the categories of

"ideal", "good," "fair," "poor," and "very poor." Data for each of these categories will be reported and compared to that of the previous year to determine if improvements occurred.

In FY 2002, data will become available from the 333 diabetes grant programs (Special Diabetes Program for Indians, P.L. 105-33). The application for the supplemental funds included a self assessment activity, and a suggested list of 14 diabetes best practices were offered to address problems identified in the self assessment tool.

While all I/T/U sites are aware of the Diabetes Standards of Care recommending that HbA1c be brought into normal range, many are unable to devote the necessary resources to do this. In FY 2001, 333 diabetes grant programs received supplemental funds (Special Diabetes Program for Indians, PL. 105-33) to support their diabetes initiatives. In their application for the supplemented funds, each program included a self- assessment activity and identified the particular diabetes best practices that would be implemented as part of their program. Improving glycemic control (as measured by HbA1c) was one of the 14 Best Practices identified in the application kit.

Those sites that have chosen to focus on the problem by applying the best practices associated with glycemic control will be assessed as a defined group using the IHS Diabetes Care and Outcomes Audit. In FY 2002, the mean HbA1c of this group and categories of glycemic control will be reported as a baseline and compared with the performance of the I/T/U system as a whole. Then, in subsequent years, the performance of this group will be followed and compared to the larger group, and results for both will be reported in the GPRA reports. Further analysis of their specific activities related to glycemic control may provide guidance and answers to other sites hoping to address this problem in the future.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Service*s, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objective 5-6 (Diabetes: diabetes-related deaths).

Program Performance: FY 2001 data for this indicator will be available 7/2002 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 2000 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes who have improved their glycemic control over the FY 1999 level. In FY 1998 the proportion of our patients with diagnosed diabetes who were classified as "Ideal" was 22% while in FY 1999 that proportion increased to 24%. In FY 2000 the proportion of clients who were classified as having “ideal” glycemic control was 26%, a 2% increase over 1999 rates.

Indicator 3: During FY 2003, maintain the FY 2002 performance level for blood pressure control in the proportion of I/T/U clients with diagnosed diabetes who have achieved blood pressure control standards.

Rationale: This indicator is directed at reducing complications of diabetes. Large clinical studies have demonstrated that blood pressure control significantly reduces the incidence of complications related to diabetes, most notably heart disease, strokes and kidney disease. In addition, achieving better blood pressure control has been shown to significantly reduce the costs associated with caring for people with diabetes. Using Staged Diabetes Management treatment guidelines for diabetes clinical management has significantly improved blood pressure control in several Indian communities.

Blood pressure control in the person with diabetes results from healthy lifestyle practices and when necessary, blood pressure lowering medications. Despite the many blood pressure lowering medications on the market, they are expensive and are cost prohibitive. Large clinical trials have shown that blood pressure control may be difficult in the person with diabetes and can often require 3-5 medications in combination to control diabetes. Many I.H.S. I/T/Us cannot afford the high cost of the medications and thus are unable to achieve the full benefit of blood pressure control in persons with diabetes that would be attainable with the availability of these medications.

Approach: The IHS Diabetes Program conducts a yearly medical record review of a random sample of over 12,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. Trends over time for I/T/U facilities, service units, Areas and IHS-wide are also constructed for selected indicators. Blood pressure control is usually defined in the non-diabetic person as a blood pressure level less than 140/90 mm Hg. However, because a person with diabetes is at greater risk for complications related to blood pressure, national standards recommend that the ideal goal of diabetic blood pressure control should be 130/85 mm Hg. For the GPRA process, "controlled" level will be defined as 140/90 mm Hg and "ideal" control will be defined as 130/85 mm Hg.

The benefits of aggressive interventions to lower blood pressure in diabetics have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements can improve the performance of this indicator through the use of grants / cooperative agreements for special projects aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetes Consultants. Efforts to achieve this measure also include the negotiation of wholesale/at cost purchase of newer, more effective (but considerably more expensive) medications for AI/AN diabetic patients.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit Achievement of this indicator will be determined by calculating the proportion of clients with diabetes who have "ideal" blood pressure control (defined as systolic BP<130mmHg and diastolic BP<85mmHg) and the proportion who fall into the "controlled" category (defined as systolic

BP<140mmHg and diastolic BP<90mmHg) in the current audit year. Improvements in blood pressure control will be reported by each year to provide trend analysis for both the ideal and controlled categories. Finally the current year mean systolic and diastolic blood pressures of the "ideal" category will be compared to that of the previous year to determine if improvements were maintained for this fiscal year.

In FY 2002, data will become available from the 333 diabetes grant programs (Special Diabetes Program for Indians, P.L. 105-33). The application for the supplemental funds included a self assessment activity, and a suggested list of 14 diabetes best practices were offered to address problems identified in the self assessment tool.

While all I/T/U sites are aware of the Diabetes Standards of Care recommending that blood pressure be brought into normal range, many are unable to devote the necessary resources to do this. In FY 2001, 333 diabetes grant programs received supplemental funds (Special Diabetes Program for Indians, PL. 105-33) to support their diabetes initiatives. In their application for the supplemented funds, each program included a self assessment activity and identified the particular diabetes best practices that would be implemented as part of their program.

The sites that have chosen to focus on the problem by applying the best practices associated with blood pressure control will be assessed as a defined group using the IHS Diabetes Care and Outcomes Audit. The performance of this group will be followed and compared to the larger group, and results for both will be reported in the GPRA reports. Further analysis of their specific activities related to blood pressure control may provide guidance and answers to other sites hoping to address this problem in the future.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Service*s, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objectives 5-6 (Diabetes: diabetes-related deaths) and 5-7 (Diabetes: cardiovascular deaths).

Program Performance: FY 2001 data for this indicator will be available 7/2002 when analyses of the HIS Diabetes Care and Outcomes Audit are completed. The FY 2000 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes who have achieved blood pressure control over the FY 1999 level. The IHS has adopted the "ideal" control standard as our benchmark for trend analysis.

Performance on this indicator was basically unchanged when comparing FY 1999 with FY 2000. In the "ideal" control category, the rate changed from 36% in FY 1999 to 35% in FY 2000, which was not a statistically significant difference. This small change can be attributed to the sample population changing each year. The IHS National Diabetes Program is encouraging programs to use the new diabetes funding to enhance their clinical care programs, including better blood pressure screening and more aggressive treatment, as well as increased funds to the pharmacy budget to purchase newer, more effective antihypertensive agents. As more tribal

diabetes programs elect to participate in the diabetes audit, we hope to see improvement with this indicator in the future.

The National Diabetes Program and Area Diabetes Consultants will also continue to encourage compliance needed to achieve this indicator through the use of peer pressure and internal peer comparisons as well as comparisons with managed care and other health organizations to attempt to get providers to change their screening and treatment behaviors.

Indicator 4: During FY 2003, maintain the FY 2002 performance level for the proportion of I/T/U clients with diagnosed diabetes assessed for dyslipidemia (i. e., LDL cholesterol).

Rationale: This indicator is directed at reducing diabetic complications. Large clinical studies have demonstrated that lowering of serum cholesterol significantly reduces the cardiovascular (CVD) morbidity and mortality associated with diabetes. In addition, achieving better control of lipid parameters has been shown to significantly reduce the CVD costs associated with caring for people with diabetes. Using Staged Diabetes Management treatment guidelines for lipid management has significantly improved lipid control for patients with diabetes.

Lipid control in the person with diabetes results from healthy lifestyle practices and when necessary, lipid lowering medications. These medications are potent and quite effective and can be used in combination with each other to achieve the greatest benefit in lipid lowering. Large clinical trials have shown that the person with diabetes requires 1-2 medications to achieve lipid control. Drug costs have risen 25%in the last year. Many I/T/U sites cannot afford to purchase these expensive medications and thus are unable to achieve the full lipid control benefit in persons with diabetes.

Approach: The IHS Diabetes Program conducts a yearly medical record review of a random sample of over 12,000 charts in I/T/U facilities in order to assess compliance with the HS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. Trends over time for I/T/U facilities, service units, Areas and IHS-wide are also constructed for selected indicators. This measure was not included in the audit until FY 1998. Each subsequent year's performance will be compared with the previous year's data.

The benefits of aggressive interventions to lower cholesterol levels in diabetics have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements will improve the performance of this indicator through the use of grants / cooperative agreements for special activities aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through

orientation, training, and monitoring provided by Area Diabetes Consultants. The diabetes grant programs choosing to focus on cardiovascular risk reduction, of which treatment of dyslipidemia is a large part, will be tracked separately to see if their overall performance is better than the group as a whole.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit
Achievement of this indicator will be determined by calculating the proportion of patients with diabetes who have had a LDL cholesterol performed in the past year. The current year's data will be compared to that of the previous year to determine if improvements were maintained for this fiscal year.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Service*s, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objectives 5-6 (Diabetes: diabetes-related deaths) and 5-7 (Diabetes: cardiovascular deaths).

Program Performance: FY 2001 data for this indicator will be available 7/2002 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 2000 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes assessed for LDL cholesterol over the FY 1999 level. The proportion of I/T/U clients diagnosed with diabetes assessed for LDL cholesterol increased from 46% for FY 1999 to 54% for FY 2000, an 8% increase. This improvement in performance is likely due to several factors, including: better awareness in both providers and patients through the National Cholesterol Education Program efforts; increased I/T/U provider awareness of the growing problem of CVD in AI/AN through Diabetes Program (and others) efforts to publicize results of the Strong Heart Study showing that the rate of CVD in AI/AN is **increasing** while it is decreasing in the general US population; and better availability of statin drugs in our pharmacies which are very effective in treating dyslipidemias.

Indicator 5: During FY 2003, maintain the proportion of I/T/U clients with diagnosed diabetes assessed for nephropathy.

Rationale: This indicator is directed at reducing diabetic complications. End stage renal disease (ESRD), or diabetic kidney disease, is a significant and growing problem in Indian communities. Large clinical studies have demonstrated that certain measurements can identify those patients at high risk for ESRD and that interventions aimed at reducing risk (blood pressure control, and other "state of the science" medications) may delay the onset of ESRD.

Preventing and delaying ESRD is a top priority and critical to the outcomes in the treatment of persons with diabetes. However, it is very expensive due to the cost of treatment. The same medications used to treat blood pressure control are also effective in delaying ESRD. The assessment of proteinuria not only indicates who is at risk for ESRD, but is an independent predictor of cardiovascular risk, which is the number one killer of AI/AN adults. Sixty five

percent AI men and 70% AI women with cardiovascular disease also have diabetes. Using the Kidney Health Profile of the diabetes audit and the Staged Diabetes Management treatment guidelines for diabetes clinical management may significantly improve the approach to kidney health in Indian communities.

Approach: The IHS Diabetes Program conducts a yearly medical record review of a random sample of nearly 12,000 charts in I/T/U facilities in order to assess compliance with the IHS Standards of Care for Diabetes. These standards are a set of clinical parameters of care and patient management that have a recognized evidence-based correlation with improved diabetic patient outcomes. This record review is known as the IHS Diabetes Care and Outcomes Audit and uses a strict protocol to assure statistical integrity and comparability of both process and outcome measures over time. Each year, facility-specific values are reported for each indicator, as well as values for each Area and IHS-wide. A special sub-report of the audit, called the Kidney Health Profile, is generated which assesses screening and treatment for kidney health in a community. Each year's reported rate will be used to provide trend analysis.

The benefits of aggressive interventions to lower blood pressure in diabetics relative to kidney health have been well described in the literature and numerous practice guidelines and standards exist. The use of appropriated diabetes funding enhancements will improve the performance of this indicator through the use of grants / cooperative agreements for special activities aimed at targeted diabetes-related treatment and prevention areas. Local efforts to improve these parameters through lifestyle intervention and appropriate medication use will be encouraged through orientation, training, and monitoring provided by Area Diabetes Consultants.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit
Achievement of this indicator will be determined by calculating the proportion of patients with diabetes and a normal proteinuria screen who have had a test for microalbuminuria performed in the past year. Then the present year's data will be compared to that of the previous year to determine if the level of assessments were maintained.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Service*s, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements and addresses Year 2010 objective 5-11 (Diabetes: proteinuria).

Program Performance: FY 2001 data for this indicator will be available 7/2002 when analyses of the IHS Diabetes Care and Outcomes Audit are completed. The FY 2000 Indicator was to increase the proportion of I/T/U clients with diagnosed diabetes assessed for nephropathy over the FY 1999. Screening for microalbuminuria to assess early diabetic nephropathy increased from 33% in 1998 to 36% in 1999. In FY 2000, screening for microalbuminuria increased to 41%.

Cancer Screening Group:

These two indicators are directed at increasing the coverage of women receiving screening for breast and cervical cancer and thus increase cancer survival rates and reduce cancer mortality.

> **Indicator 6: During FY 2003, maintain the proportion of eligible women who have had a Pap screen within the previous three years at the FY 2002 levels.**

Rationale: The purpose of this indicator is to reduce the mortality and morbidity of cervical cancer which occurs at higher rates among AI/AN women than in the general U. S. population. The death rate for AI/AN women is 4.1 per 100,000 compared with 2.5 per 100,000 for the U.S. All Races rate. Furthermore, this cancer is the cause of significant premature mortality and is almost entirely preventable by thorough Pap screening and early treatment of pre-cancerous conditions. The long-range goal is to reduce both cervical cancer incidence and death rates to achieve parity with the U. S. all-races rate. This may be attainable by the year 2010**.** This indicator supports a nationally recognized standard of care. We propose to change to a three-year time frame because national standards of care are evolving; the current standard of care that is now widely recognized calls for screening low-risk women with previously normal pap results at three-year intervals, while high-risk women should be screened annually. Because a large proportion of women are considered low risk, annual measures of pap screening appear low. Counting women who have been screened in the previous three years should capture both low-risk and high-risk women, and therefore will represent a more accurate picture of how well IHS is achieving the goal of universal screening.

Approach: The IHS Office of Public Health is responsible for overall coordination of efforts to achieve these indicators. All IHS providers will be encouraged to provide timely screening and follow-up services for eligible women. Pap screening rates will be part of the Performance Appraisal of each IHS Area Director. IHS will continue to upgrade and support the PCC-based Women's Health Software package. In addition, public education, training providers to perform colposcopy, added funding for screening and treatment, and aggressive tracking and follow-up of abnormal Paps will all be part of the strategy. The proposed FY 2003 IHS budget will support the capacity to maintain current screening levels in the face of population growth and rising costs of treatment.

Data Source: The total number of women age 18 and over who have had at least one Papanicolaou screening test performed (cervical cytology or Pap smear) in the previous three years will be determined from IHS Laboratory reports and PCC electronic patient records. The population denominator will be all AI/AN women age 18 and over who have been seen in IHS facilities within the previous 3 years, derived from IHS Patient Registration records. Previous estimates of pap screening rates were based on a sampling methodology, however, our capacity to utilize IHS electronic medical records is improving rapidly and we plan to use all IHS electronic records for this measure. A small number of facilities that do not participate in the PCC/RPMS system will not be included.

Beginning with FY 2000, we will report on both one-year and three-year screening rates. This will allow us to compare to the previous year performance, while transitioning to the three-year rate. When three-year screening rates have been reasonably well established (three years of

data), we will stop measuring the one-year screening rate and establish a timeline for achieving our goal of a 90% three-year screening rate. The baseline for this measure as reported in FY 2000 performance report is 18%. We believe that this is a significant underestimate and that reported rates may rise more rapidly than the established targets over the next 2-3 years as a result of data quality improvement efforts.

At approximately 5-year intervals, we will determine the mortality rate from cervical cancer among AI/AN women. This will help demonstrate whether pap screening is having the desired effect in reducing mortality.

Linkages: This indicator supports the President's Initiative on Cancer Screening and Management, the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* 4.1 *Promote the Appropriate Use of Effective Health Care,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements (National Breast and Cervical Cancer Early Detection Program). This indicator also directly supports the HP 2010 objective 3-4 (Cancer: cervical cancer deaths).

Program Performance: The FY 2000 and FY 2001 Performance Reports will be completed 4/02 when analyses of the full automated patient record databases for both years are completed. The delay in the final FY 2000 report is the result of moving from a sampling approach, which was the basis of last year's provisional data, to the analysis of the entire database once it has been verified.

Indicator 7: During FY 2003, maintain mammography screening at the FY 2002 rate.

Rationale: The purpose of this indicator is to reduce the mortality and morbidity of breast cancer among AI/AN women. Breast cancer has increasingly become recognized as a problem among AI/AN women. Although incidence and mortality rates have been documented in some AI/AN populations in the past to be 1/3 to 1/2 of the White rates, more recent studies have shown that breast cancer incidence in the northern plains and Alaska are now approaching the rates of the White population. Screening mammography following clinical breast exam is a nationally recognized standard of care based on its association with both reduced mortality and morbidity because breast cancer is identified at earlier stages when treatment is more likely to be successful. Current recommendations are for screening every one or two years; we have chosen the two-year interval as being more cost-effective. Screening mammography was seldom performed by IHS before 1991, when the CDC National Breast and Cervical Cancer Early Detection Program was initiated. The CDC funded programs have been successful in reaching AI/AN women in many states. IHS is also increasing its capacity to perform mammography at IHS facilities.

Approach: Mammography screening is provided to AI/AN women either directly by IHS facilities, by mobile mammography units supported by CDC funds, or through contract health arrangements with private radiology groups. Regional coordination and assistance is the

responsibility of the IHS Area offices. The IHS Office of Public Health performs the overall coordination of this effort. Linkages with CDC and State screening programs are critical to success. CDC has funded the National Indian Women's Health Support Center to provide technical assistance to Tribal mammography programs.

The strategic approach includes outreach to improve patient access and the availability of specialized staff and equipment to perform the screening. The staff required are public health nurses, Community Health Representatives, health educators, and specialized clinical providers (nursing, physician, and imaging staff) to provide the actual clinical breast exams and mammograms. The availability of screening must also be associated with the capability to provide diagnostic studies such as ultrasound, biopsy, and fine needle aspiration, as well as treatment such as surgery and chemotherapy.

The successful reduction of premature deaths and morbidity among AI/AN women will depend on full implementation of effective screening and follow-up clinical services. Continued improvement will depend on extensive collaboration with CDC-funded State and tribal screening programs. The proposed FY 2003 IHS budget will support the capacity to maintain current screening levels in the face of population growth and rising costs of treatment.

This indicator is linked to success in meeting Strategic Objectives one, two, and four of the agency's component of the DHHS Strategic Plan.

Data Source: IHS electronic medical records will be the principal data source. The numerator will be the total number of women over age 40 who have had at least one mammogram performed in the previous two years, as determined from IHS Radiology reports, Contract Health records, and PCC electronic patient records. The population denominator will be all AI/AN women over age 40 who have been seen in IHS facilities within the previous 3 years, derived from IHS Patient Registration records. Previous estimates of mammography screening rates were based on a sampling methodology, however, our capacity to utilize IHS electronic medical records is improving rapidly and we plan to use all IHS electronic records for this measure. A small number of facilities that do not participate in the PCC/RPMS system will not be included, as well as women who receive mammograms from outside sources not affiliated with IHS.

The baseline for this measure, from the FY 2000 Performance Report, is 15.3%. We believe this to be a low estimate because of internal problems with data quality and difficulty in counting the number of mammograms performed by non-IHS providers. Our current data quality improvement efforts should result in improving measurement of IHS screening rates. We will continue to explore ways to capture the records of screening mammograms performed outside of IHS.

Type of Indicator: Impact

Linkages: This indicator supports the President's initiative on Cancer Screening and Management, the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,*

4.1 *Promote the Appropriate Use of Effective Health Care,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It is supported by IHS/CDC agreements (National Breast and Cervical Cancer Early Detection Program). This indicator directly supports HP 2010 objective 3-3 (Cancer: breast cancer deaths).

Program Performance: The FY 2000 and FY 2001 Performance Reports will be completed 4/02 when analyses of the full automated patient record databases for both years are completed. The delay in the final FY 2000 report is the result of moving from a sampling approach, which was the basis of last year's provisional data, to the analysis of the entire database once it has been verified.

Well Child Care Indicator:

Indicator 8: During FY 2003, maintain the proportion of AI/AN children served by IHS receiving a minimum of four well-child visits by 27 months of age at the FY 2002 level.

Rationale: This indicator is directed at maintaining child and family health by supporting access to non-urgent care. Well child visits have been associated with improved post-neonatal mortality and opportunities to improve family health and safety in the longer term and is a recognized national standard of care. Of particular importance are the anticipatory educational interventions given to parents concerning diet and nutrition, injury prevention, and prevention of family violence. The current minimum standard for Well Child Visits is six for first-born children and five after first born. Accepting four visits as an acceptable minimum is based on the high percentage of children who receive Well Child services in conjunction with urgent care visits and thus are not coded as Well Child Visits.

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Approach: The responsible parties are the local I/T/U service sites. The IHS Area offices can provide assistance in development and coordination of media campaigns and analysis of information and they are responsible for regional coordination of this effort. The IHS Office of Public Health is responsible for overall coordination of the effort. Linkages with the USDA-WIC program and the DHHS Head Start program are also critical.

The strategies for success are rooted in effective outreach and management of clinic scheduling for service provision. The outreach activity is dependent upon parent education to assure their awareness of the importance of routine and periodic assessment of well children. Secondly, the effective identification of children in the targeted age groups is important. Public health nursing, Community Health Representatives, Head Start programs, and parent groups have important roles in identifying children and families who are the target of this intervention.

Clinical care is dependent upon the availability of trained nursing and physician staff with the time to address this objective. Scheduling and follow up of these children and their families is critical. The cooperation of medical records staff and others in the clinical environment is essential. Achievement of effective well-child health care is critical to the prevention of childhood obesity, injuries, and family dysfunction.

The proposed FY 2003 IHS budget will support the capacity to maintain current coverage rate of well child care in the face of population growth and rising costs of treatment and thus the target is set at maintaining the FY 2002 level.

Data Source: RPMS/PCC. The universe includes AI/AN children (active users) who turn 27 months during the reporting period and that had 4 or more well child visits. Well child visits are defined as visit to clinics coded as Well Child (24), General Preventive (27), or Early Periodic Screening and Developmental Testing (57) or APC recode of 818 or a diagnosis of Other healthy infant or child receiving care (ICD9 code v20.1) or a diagnosis of Routine infant or child health check (ICD9 code v20.2). Data in RPMS represents about 90 percent of all tribes because there are some compact and contract tribes that do not report data into RPMS.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, and 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services* and broadly addresses the HP 2010 objectives addressing Focus Area 16: Maternal, Infant, and Child Health. This indicator also supports the IHS/Head Start partnership in assuring the AI/AN Head Start children complete their health care performance standards.

Program Performance: The FY 2000 and FY 2001 Performance Reports will be completed 4/02 when analyses of the full automated patient record databases for both years are completed. The FY 2000 data presented last year were provisional and will be finalized upon the verification of the data set.

Substance Abuse Treatment Group:

These two indicators address substance abuse treatment. The first targets the reduction of relapse rates by improved aftercare for youths completing residential treatment programs. The second addresses identification and referral of pregnant woman at risk for alcohol related birth defects.

Indicator 9: During FY 2003, Regional Treatment Centers will collectively achieve at least a 5% increase over the FY 2002 baseline for each of the following criteria:

a. % of youths who successfully completed alcohol/ substance abuse treatment at IHS funded Residential Youth Treatment Centers
b. % of youth (that completed treatment) who developed an aftercare plan with their appropriate aftercare agency
c. % of youth who have this after care plan communicated to the responsible follow-up agency; documentation of this communication must be in the youth RTC record
d. % of RTC programs that have a family week opportunity for youth that participate in the Regional Treatment Centers

Rationale: This indicator is intended to evaluate outpatient substance abuse resources for youth. Outpatient community resources specific to the youth population are an essential part of the continuum of behavioral health care services. The majority of our youth do not participate in inpatient treatment centers.. However, if available, successful completion of residential treatment can help reduce drug and alcohol use relapse in youths .

Family involvement in treatment is predictive of treatment outcome. (Stewart 1993; Hsieh, 1998). Opportunities for and participation by families in a residential family week are predictive of long term improving teens. Residential Treatment Centers need to ensure that family week opportunities exist.

Studies indicate that the longer individuals are engaged in treatment (including aftercare/continuing care) the better the prognosis (Hoffmann, DeHart, & Gogineni, 1998; Zywiak, Hoffmann, & Floyd, 1999). Aftercare is usually provided in the referring community. There has historically been limited coordination among RTCs, service units and local aftercare programs. The aftercare measure aims to assure the coordination of effective and efficient delivery of follow-up treatment services at the local level following RTC release. Aftercare or continuing care is, ultimately, the responsibility of the referring community of residence of youth who were treated in a residential facility.

Approach: The Division of Clinical and Preventive Services, Office of Public Health will be responsible for coordinating data collection from the area behavioral health coordinators. The Behavioral Health component (Alcoholism and Substance Abuse Program) continues to assist in the development of an ongoing evaluation instrument in consultation with the RTCs. In addition, the RTC's utilizing the RPMS Chemical Dependency Management Information System (CDMIS) and the RPMS Mental Health/Social Service (MH/SS) packages routinely collect information that can be exported for national reporting purposes. These packages are currently being rewritten with a planned distribution for FY 03.

The process of collecting YRTC data is becoming more complex due to tribal sovergnity and the use of non-federal commercial software management information software packages. Efforts to improve reporting by local tribally managed programs will continue to be encouraged with a goal of national data compatibility .

Findings from the Comprehensive Assessment & Treatment Outcome Research adolescent study indicate that youth engaged in aftercare/follow up activities had better sobriety rates than those who did not, but for optimal benefit, contact frequency of at least twice per week was required (Hoffmann, Mee-Lee, & Arrowood, 1993). The majority of aftercare services are the responsibility of local programs as youth who have completed YRTC treatment return to their community for aftercare services. Data suggest that youth whom have completed treatment and are involved in continuing care and follow-up services maintain higher sobriety rates. YRTC's must ensure that adequate aftercare treatment plans are developed and communicated to the appropriate aftercare agency . The majority of aftercare is not done with through the YRTC. Consequently, it is difficult to track 6 month outcome data. Due to ongoing problems with this data, long term outcome data is not included in FY 2003. Other proxy measures predictive of long term residential treatment success have been substituted.

Data Source: Data for this indicator are collected from the area Behavioral Health coordinators, as well as RPMS applications, the RTC evaluation system, and other software utilized by the RTCs and provided to the Areas and Headquarters. Both Area and Headquarters behavioral health staff review the data for completeness and have frequent dialogues with each other or directly with the RTC s to resolve identified data problems. These different sources of data are then analyzed and compiled into one report at Headquarters. Efforts to standardize the RTC data collection format for all RTCs and Areas is a priority during FY 2002; FY 2003 will focus on the data verification and validation process. In addition, we are hopeful that the new behavioral health RPMS application will support additional outcome indicators.

Type of Indicator: Process/Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.4 *Curb Alcohol Abuse*, 1.5 *Reduce the Illicit Use of Drugs*, 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services*. This indicator also directly supports HP 2010 objective 26-10 (Substance Abuse: reduce youth use of illicit substances).

Program Performance: The FY 2001 performance measure was to provide follow-up equal to or greater than the FY 2000 level and to increase at least by 5% over the FY 2000 level the percentage of youths who have documented 6 months of less alcohol and drug use than before treatment. 12 YRTC's reported data in FY 2001, which is similar to FY 2000.

This target was accomplished in FY 2001 with 60.0% of the youths discharged from RTC receiving follow-up contacts at 30 days, at least a second follow-up by 6 months, and at least a third at 12 months after discharge This compares to 48.0% in FY 2000, which represented a 12% increase in follow-up.

There continues to be an ongoing issue of data collection, analysis and compilation. Half of the YRTC facilities utilize RPMS and the others utilize other data software systems. Transparent data extraction from different data sources to the national IHS data center still needs improvement. The proposed integrated behavioral health RPMS clinical application should solve many of these needs.

Indicator 10: During FY 2003, maintain the proportion of I/T/U prenatal clinics utilizing a recognized screening and case management protocol(s) for pregnant substance abusing women at the FY 2002 level.

Rationale: The purpose of this indicator is to contribute to systematic efforts at reducing the incidence of Fetal Alcohol Syndrome (FAS). Surveillance conducted at two IHS Areas indicated FAS rates greatly exceed general population rates (2.3 and 2.7/1000 live births vs. 0.6/1000 live births approximately). The Institute of Medicine 1996 report on FAS includes case identification and appropriate intervention and treatment of a maternal alcohol abuse as a critical part of FAS prevention. Thus, the purpose of this indicator is to assure that providers consistently screen and

make appropriate referrals for women at risk. The written protocol makes this more likely because these efforts become part of the local quality assurance process. However, successful implementation of such a process requires staff training as well as cooperation from tribes and local governing bodies and thus requires resources and time.

Approach: The I/T/Us will be responsible for reporting via survey to be conducted by the Division of Clinical and Prevention Services, Office of Public Health relative to the implementation of protocols. Resources for analysis may be required from other divisions within the Office of Public Health. The Prenatal Health Assessment (PHA) screening instrument was developed in the Aberdeen IHS Area with the Centers for Disease Control and Prevention. A curriculum for utilizing the instrument in prenatal clinics and developing case management systems has been piloted in that Area in FY 1998. In the Aberdeen Area, there are numerous clinics and hospitals that are currently using the protocols. In FY 1999 the protocols will be piloted in two new Areas. This screening instrument is one of several recognized protocols that are being encouraged for use in I/T/U programs to assure the routine prenatal substance abuse screening and case management tailored to the resources of each site.

Data Source: Survey and possibly RPMS

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.4 *Curb Alcohol Abuse*, 1.5 *Reduce the Illicit Use of Drugs*, 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also directly supports several HP 2010 objective 16-16 (Maternal, Infant, and Child Health: Fetal Alcohol Syndrome).

Program Performance: The FY 2001 indicator committed to increasing the proportion of I/T/U prenatal clinics utilizing a recognized screening and case management protocol(s) for pregnant substance abusing women by 10% over the FY 2000 level which was 87.6% based on 12 Areas reporting . For FY 2001, all 12 Areas reported for a total of 226 prenatal clinics. Of those, 216 had implemented such protocols for a rate of 94.7%, which is a 7.1% improvement over FY 2000 but did not reach the 10% target increase. I retrospect the target should have been adjusted down with the accomplished the 11.7% increase in FY 2000, hence leaving little room for improvement. Looking longer term, the combined two-year target increase of 15% was exceeded with an actual total increase of 16.3% increase.

Oral Health Group:

Because oral diseases seldom result in death or severe disability, the importance of treating and preventing them is often overshadowed by other health priorities, particularly in times of a growing demand for a diversity of urgent care medical services. However, as was made evident from the IHS Dental Program's participation in the 1989-91 World Health Organization oral health status study, the oral conditions of Indian participants were far worse then the U.S. General population and profoundly influenced their quality of life, including their ability to

attend school, work, sleep, eat, and socialize. An overview of the findings of this study is provided in the section titled: "The Role of Poverty, " elsewhere in this document.

The 1999/2000 IHS Oral Health Survey of American Indian / Alaska Native dental patients underscored the significant disparities in oral health that continue to exist between native and non-native Americans. Key findings concerning the Native American population examined include:

- Native American patients experience roughly three times the amount of tooth decay and periodontal disease as compared to the general U.S. population.
- Very young Native Americans experience tooth decay at rates significantly greater than general U.S. population children.
- The use of tobacco is strongly associated with both oral cancer and periodontal disease. The prevalence of tobacco use starts at about 13 years of age among Native Americans and steadily increases with age.
- Most Native American adults and elders have lost teeth because of dental disease or oral trauma.

Given these and other related, consistent findings, it is not surprising that dental health has been consistently identified as a high priority in surveys of American Indian and Alaska Native (AI/AN) consumers' health needs. Furthermore, dental care has been consistently identified in recent stakeholder developed budget formulation activities as one of the top five health priorities for the IHS to address with budget requests.

Indicator 11: During FY 2003, increase the proportion of AI/AN population receiving optimally fluoridated water by 5% over the FY 2002 levels for all IHS Areas.

Rationale: Fluoridation is one of the most cost effective public health measures for reducing the prevalence of dental decay in all age groups. Costs range from a mean of 31 cents per person per year to $2.12 per person in communities with less than 10,000 people. For many Indian communities, the cost may be up to $5 per person per year since most of the water systems in Indian country serve less than 1,000 people. It has been estimated that for every dollar spent on fluoridation, there is a $50 savings in dental treatment. Fluoridation of community drinking water is a major factor responsible for the decline in dental caries (tooth decay) during the second half of the 20th century. In a 1991 oral health survey conducted by the Indian Health Service, there was a 31% decline in caries rates in adolescent children in those communities with access to fluoridated water. However, despite the known benefits of fluoridation, the number of fluoridated water systems in Indian country has declined by 68% over the last nine years. In 1991, 717 water systems were fluoridated and routinely monitored for fluoride ion levels. By 1999, only 226 systems were fluoridated and monitored. This decline in systems has had an adverse impact in the percent of the population that needs the benefits most and are now receiving the least benefits from this proven public health measure.

Approach: The IHS Dental Program, Office of Environmental Health and Engineering Branch, and the Centers for Disease Control and Prevention's Division of Oral Health entered into an

interagency agreement in FY 2000 to support a demonstration fluoridation project in the Albuquerque and Phoenix Areas. The funds were used to hire a contractor in each Area to provide on-site visits to each tribe to promote community water fluoridation. The contractor provided information to the community on water fluoridation, assessed need for training and technical assistance for the water operator, and managed the split sample and surveillance system. The contractors will receive training using the CDC's web-based Water Fluoridation Reporting System (WFRS).

The expansion of this indicator to address all IHS Areas in FY 2001 and thereafter is the result of earmarked recurring funding of $500,000 in FY 2001 to support water fluoridation IHS-wide. Rapid export of lessons learned during the demonstration project will be necessary to impact fluoridation in all other Areas. Areas will expand upon and revise the strategies adopted by the pilot sites in initiating their programs. Each Area will have one individual responsible for fluoridation surveillance and reporting. Funds to each Area may be used to hire a "circuit rider," as was planned at the pilot sites, or in other ways to enhance fluoridation efforts. Each Area will submit an annual plan of action and an annual report of activities and outcomes. For FY 2003, as in FY 2002, the indicator will address increasing the proportion of the AI/AN population receiving optimally fluoridated water. The compliance standards will remain the same. Focusing upon the population served by fluoridation encourages efforts to be directed where the largest possible benefit can be achieved from the available resources.

Date Sources: (1) Water Fluoridation Reporting System (WFRS) and database maintained by CDC. The FY 2002 level, available January 2003, will provide the comparison or baseline for assessing the annual gain.
(2) Reports from IHS Area fluoridation coordinators and Area Dental Officers. As WFRS lacks both the detail and the personal observations that can be provided by field personnel, individual Area reports continue to be solicited. These reports form the basis for the formulation and revision of Area and local fluoridation plans.

Type of Indicator: Impact

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* 4.1 *Promote the Appropriate Use of Effective Health Care,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also addresses HP 2010 objective 21-9 (Oral Health: community water fluoridation).

Program Performance: The FY 2001 indicator consisted of two separate components:
(1) Improve water fluoridation compliance by 10% over FY 2000 levels for Areas participating in IHS/CDC Fluoridation Surveillance Demonstration Project (Albuquerque and Phoenix Areas). In FY 2000 18 water systems in these Areas met the standard of being in compliance. For FY 2001 this increased to 23 systems, a 28% increase in systems. This objective was met.

(2) Improve water fluoridation compliance by 5% over FY 2000 levels for Areas other than those participating in the Demonstration Project. In FY 2001 neither increase nor decrease in the number of systems fluoridating in these ten other IHS Areas was documented. This objective

was not met. In both FY 2000 and FY 2001, 208 of 667 systems were fluoridating (~31%).

Throughout the 12 IHS Areas, 231 systems are currently fluoridating. This represents approximately 32% of 717 identified water systems. For a variety of reasons such as local politics, size of the system, and lack of local interest or resources, is not feasible to fluoridate all of these 717 systems. Many of the systems serve very small populations; given the resources and efforts needed to fluoridate any individual system, these very small systems represent points of "diminishing returns." A prioritized list of targeted systems, including identification of systems of high priority and those deemed not feasible for current efforts, is being developed.

Findings and strategies from the two demonstration sites clearly must be integrated quickly into the national fluoridation effort. Dissemination of reports from the two demonstration sites has already begun. IHS dental and environmental health meetings and conference calls throughout the early part of FY 2001 will emphasize the lessons learned in the Phoenix and Albuquerque projects. Additional funding and expert assistance from CDC will be requested at spring, 2002 planning meetings.

Individual reports from IHS Areas other than the two demonstration sites make it clear that significant progress has been made in some Areas with respect to water fluoridation, but the final objective of all the efforts, successful fluoridation, has not yet occurred. The report from Aberdeen, for example, justifiably predicts "…a significant enhancement in fluoridation in the near future." This optimism is based on well-documented progress that has yet to come to fruition.

On the other hand, there are Areas in which little significant enhancement of efforts has taken place. Collaborative efforts with CDC will be aimed at both those Areas about to exhibit significant strides in fluoridation, and those Areas in need of encouragement and initial implementation of planning efforts.

Data from the majority of Area reports are verifiable, and represent a reasonable measure for the indicator. Data derived from the WAFRS reporting system are of very limited value at present, primarily because so few tribal utilities choose to enroll in the WAFRS system. Without a reasonably complete set of reporting tribal utilities throughout the country, the utility of WAFRS data for GPRA planning and reporting activities remain very low.

The only Areas that were supported financially at a level significantly higher than the others were the two Areas comprising the demonstration sites. These additional resources derived from both IHS and CDC, along with the increased planning, expectations, and scrutiny that are associated with the designation of "demonstration sites," are clearly associated with the modest successes exhibited by both Areas. Those Areas funded through IHS monies only were funded at an average level of about $40,000 per Area. These funds proved to be sufficient to maintain current levels of fluoridation, and in certain specific instances served to enhance the quality of existing fluoridation efforts. This level of funding proved inadequate to yield significant gains in either the number of systems fluoridated or the number of individuals able to consume fluoridated water.

Indicator 12: During FY 2003, maintain the proportion of the AI/AN population that obtain access to dental services at the FY 2002 level.

Rationale: This indicator is directed at improving the oral health status. Evidence from large-scale dental insurance studies supports the fact that people who utilize dental services annually have improved oral health status compared to those who do not. The growing AI/AN population has resulted in higher demands for dental care; increasing difficulties in recruiting dentists have compounded this problem. As a result, there has been almost a 10% reduction in the percent of the AI/AN population annually receiving dental services in recent years. Restoring access to both clinical restorative treatment and preventive services can lessen the disease prevalence and progression. Improving access and thus increasing utilization of dental services can also result in less costly care, improved oral health status, and improved quality of life. However, the proposed FY 2003 IHS budget will support the capacity to maintain the FY 2002 level of dental access in the face of population growth and rising costs of treatment and thus the target is set at the FY 2002 level.

The IHS conducted a program-wide oral health survey in FY 1999/2000 to determine oral health status of the AI/AN population. Preliminary analysis of national oral health survey data suggest:

- moderate increases in tobacco use from 1991 to 1999 in young adults ages 35–44; severe increases in tobacco use in adolescents ages 15–19. Widespread vacancies preclude the possibility of consistent counseling within the dental program.
- significant increases in the number of decayed, missing, and filled teeth in all age groups from 1991 to 1999. Increases in measured disease experience are inversely correlated with access to dental care.
- significant decreases from 1991 to 1999 in both the number of people served by fluoridated water systems, and the number of young children receiving preventive dental sealants. It is reasonable to assume both unfortunate decreases are exacerbated by the widespread vacancies among oral health care providers.
- In 1991, 717 water systems serving Native Americans were fluoridated and were routinely monitored for fluoride ion levels. By 1999, only 226 systems were fluoridated and monitored.
- In 1999, 78% of adolescents ages 15–19 had received one or more dental sealants. This figure, a legacy of the clinical efforts of approximately a decade ago, remains significantly higher than levels of coverage suggested by any national health objective for the U.S. population. In 1999, only 39% of youngsters ages 6–8 had one or more sealants.

Approach: Providing access to care is directly dependent upon the dental care resources in a community which include the availability of dental providers and facilities, and their efficiency in providing services. Access to dental services in FY 2003 will be maintained in the face of population growth and the rising costs of care through a combination of strategies that include:

- increase the I/T/U dental workforce by increased effectiveness in the recruitment of staff to fill vacant and newly funded dental positions using advance communications technologies, greater use of alternative pay systems, and expanded loan repayment opportunities.

- increase retention and productivity of dental providers through the expansion/enhancement of support centers to provide training and technical assistance to enhance efficiency and effectiveness of preventive and clinical care, and restoration of short and long-term staff training opportunities.
- update and simplify the automated dental record keeping system to enhance clinical efficiency and planning and evaluation capability.
- expand essential dental specialty services through contracts with the private sector.
- target specific populations, (i.e., school-age children, diabetics or other special target groups), utilizing third party payers, and identifying Medicaid-eligible families which would result in increased resources to hire additional staff.

The vacancy rate for dental providers of approximately 18% is the key determinant limiting access to care. A full time dental recruiter has been hired; many new strategies to decrease vacancy rate are in the process of being implemented. These include recruitment visits to every U.S. dental school, a professionally designed and produced recruitment package, increased remuneration for incoming dentists, increased opportunities for loan repayment, and other strategies. Implementation of these strategies will likely decrease the vacancy rates somewhat in coming years. However, the current vacancy rate of approximately 18 – 20% has remained relatively stable over the last few years despite increased emphasis upon recruiting. This suggests additional efforts toward retention of dental providers may be necessary.

Data Source: IHS Dental Data System component of the RPMS. The IHS Dental Data coordinator compiles dental data monthly from the IHS data processing center and sends to the Area Dental Consultants for verification.

For the numerator of this calculation, the dental program will assess the number of patients who visit I/T/U and contract systems by counting first visit procedure codes within the Dental component of the PMS patient data record as a valid proxy measure of annual dental care utilization. An assessment of the total number of first visits in FY 2003 will be available by January 2004. The denominator will be the IHS three-year user population. This estimate is currently available, though the latest, most accurate estimate will be used.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.,* This indicator also relates to the HP 2010 objectives 13.12 (Oral Health: referral and follow-up: children) and 21-10 (Oral Health: use of oral health care system).

Program Performance: The FY 2001 indicator committed to a relative large and optimistic increase of 4% in access to care over the FY 2000 objective, and a 1.9% increase over the FY 2000 performance, postulating a target level of 27% of the AI/AN population receiving dental services. This performance measure was not achieved; 26.3% of the user population accessed dental care during FY 2001. This was derived from 385,253 first appointments recorded in all

12 Areas during FY 2001 divided by the IHS calculated user population 1,478,168 minus 10,775 estimated population of tribal programs that did not submit dental data. Thus, the rate is calculated on >99% of the user population.

The FY 2002 indicator commits to increasing by 1% the AI/AN population receiving dental services over FY 2001 levels. Thus, the FY 2002 objective translates to 27.3% of the user population.

Access to care is strongly associated with availability of dental providers. The dental program continues to operate with a vacancy rate for dentists of approximately 18 - 20%. Given that many of our programs have waiting lists of patients seeking access, the primary strategy to increase access to care centers upon the recruitment and retention of dental providers. Given the limitation imposed upon access to care by the current vacancy rate, it is difficult to perceive a significant increase in access without a concomitant decrease in the vacancy rate for oral health care providers. The entire scope of the aggressive dental recruitment program is beyond the scope of this report. The customary cyclic increase in recruits that coincide with the graduation cycle of U.S. dental schools in June and July each year may be timed such that a significant increase in access to care will occur only very late in the fiscal year.

Indicator 13: During FY 2003, maintain the number of sealants placed per year in AI/AN children at the FY 2002 level.

Rationale: Dental sealants, a recognized standard in preventive dental care, are an effective measure for reducing dental decay rates in children and can be effectively applied by dental auxiliaries at relatively low cost. When utilized in conjunction with a program of fluoridation or topical fluorides, sealants can prevent significant amounts of decay. Because surveys of AI/AN children have consistently identified them as having significantly higher decay rates than the general U.S. population, sealants are essential to reduce both the ravages and costs of treating dental decay.).

The IHS Dental Program was one of the few dental programs in the nation to have achieved the HP 1990 and 2000 dental sealant objectives. However, based on FY 1999 IHS Oral Health Survey, no significant progress has been achieved since the FY 1991 IHS Oral Health Survey and coverage actually declined for the younger age group. In 1999, 78% of adolescents ages 15–19 had received one or more dental sealants. In 1999, only 38% of youngsters ages 6–8 had one or more sealants. Again, increasing difficulties in the recruitment and retention of dentists, and the loss of infrastructure, particularly the Area Health Promotion/Disease Prevention officers, have probably contributed to the decline in the number of sealants placed in the younger age group.

The intent of this indicator is to reduce dental decay in children by increasing both the number of children with dental sealants (the prevalence of sealants in the population) and the number of sealants per child (the intensity of coverage per individual). The result of an effort aimed at increasing the overall number of sealants placed will be an increase in both the number of children with dental sealants and the number of sealants per child.

This revised indicator will provide a better overall assessment of the dental prevention program than an estimate of the prevalence of children with one or more existing sealants.

Approach: Given the current workforce in the Indian Health Service dental program, the current high vacancy rate among dental providers of care, and the current unmet need for restorative and emergency care, innovative changes in the use of auxiliaries as well as delivery sites need to occur. In order to maintain the intensity of sealant placement in FY 2003, it will be necessary to emphasize school based and school linked dental sealant and preventive programs. The result of this effort will hopefully be an increase in both the number of children with dental sealants and the number of sealants per child.

Local dental clinics are responsible for implementing/maintaining effective and efficient sealant programs that are either school-based or school-linked and targeted for children ages 6-14 years (to coincide with the eruption of first and second permanent molar teeth). In order to maintain the number of sealants placed on the posteri Indian children and adolescents in FY 2003, an innovative approach will be required. One option involves the use of contract 4-handed dental sealant teams hired from the private sector. Dental Community Health Aides may be trained to assist dental hygienists and dental assistants in placing sealants. Additional portable equipment to be used in the schools is an efficient way to make use of lack of clinic space and going to where the children are – the schools.

Estimates of the prevalence of existing sealants can be derived from data summarizing the number of sealants placed annually. Sealant prevalence, and the accuracy of our estimates of sealant prevalence, can be assessed during the next national oral health survey.

Data Source: IHS Dental Data System component of the RPMS. This year, and in years prior to FY 2001, the IHS dental program attempted to assess the number of children with intact sealants. This resulted in relatively small data sets and relatively unreliable data, as health providers were asked to assess and record the prevalence of existing sealants. IHS dental providers are focused upon treatment planning and treatment related issues; they are requested to routinely record very little with respect to descriptive or epidemiological findings. A relatively high turnover rate results in many IHS dentists having little appreciation for the need for data specific to GPRA. Thus, the amount of data reported concerning the prevalence of existing sealants has remained very low in recent years.

Switching to a simple count of sealants placed per year as a measure of the effectiveness of the IHS dental sealant program has a number of advantages:

- Data will be relatively complete, as compared to the currently requested counts of existing sealants, as a count of sealants placed can be obtained directly from data reflecting services rendered.
- Placement is an “all or none” phenomenon; assessment of old, existing sealants that might be damaged or partially lost requires a judgment call that must be made without standardization to other practitioners throughout the country. Counting the number of new sealants placed avoids any such judgment calls.

- In contrast to estimates of the prevalence of existing sealants, no additional effort is required of any field personnel in order to obtain these data. Data reflecting the number of sealants placed can be extracted from the database of services rendered.
- Most important of all, the resultant database will be exponentially larger and of greater validity than the data utilized in previous years. Reliance upon a very small and potentially unrepresentative sample for data will be eliminated; the count of sealants will approximate the "universe" of the entire dental program, rather than a sample.

This revision of data collection is expected to result in significantly larger data sets and more reliable data. In contrast to the previous measure, these data will provide an estimate of both prevalence of sealants and intensity of care, by providing an estimate of the number of sealants placed per patient.

In FY 2001, a total of 81,776 sealants were placed in the IHS dental program.

Type of Indicator: Impact and Balance Scorecard: innovation and learning perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* The indicator also addresses the HP 2010 objective 21-8 (Oral health: dental sealants).

Program Performance: The FY 2001 indicator committed to assuring that the percentage of children 6-8 and 14-15 years who have received protective dental sealants on permanent molar teeth was increased by 3% over the FY 2000 IHS Oral Health Survey level. For FY 2001, the performance targets were not achieved for either age group, though significant increases in the prevalence of sealants in both age groups were documented.

In FY 2000 44.1% of the assessed children ages 6-8 had sealants on their molar teeth. This finding set the FY 2001 objective at 47.1%. In FY 2001, 45.6% of children 6-8 years from 6 Areas had sealants on their molar teeth, an increase of 1.5% over FY 2000.

In FY 2000 49.1% assessed children ages 14- 15 years had sealants on their molar teeth. This set the FY 2001 objective at 52.1%. In FY 2001 51.5% of the children in this age group had sealants on their molar teeth, an increase of 2.4%.

The findings for both age groups must be taken with caution for FY 2001 because they are based on relatively small convenience samples from only 5 of the 12 Areas and represent less precise estimates of sealant coverage than the IHS national oral health surveys, which are conducted only once every 7-9 years. Confidence intervals are not appropriately reported for these data, as the estimated prevalence is based on a small convenience sample unlikely to be representative of the population. The precise estimate of prevalence of children with sealants remains difficult to assess short of implementing national oral health surveys annually, which is prohibitively expensive. The current method used to derive FY 2001 estimates relies upon the use of codes that are under-reported and inconsistently utilized. IHS public health specialists, with the consultative assistance of epidemiologists and statisticians, have considered carefully the

possible methods for estimating the effectiveness of the IHS dental sealant program in the intervening years between oral health surveys. This approach must be made using replicable and efficient methods undisruptive of the provision of clinical care. Their recommendation is that the most reliable and easy way to collect data representative of the entire program is to utilize a simple count of sealants placed. Using empirical data from previous IHS surveys, the number of these procedures recorded divided by the population of the target age groups yields an estimate of both prevalence of children with sealants and intensity of coverage per child.

The IHS dental program was one of the few dental programs in the nation to have achieved the HP 1990 and 2000 dental sealant objectives. Based on FY 1999 oral health survey data, little progress with respect to the prevalence of sealants in youngsters has been achieved since the FY 1991 oral health survey. New and innovative ways to increase the number of sealants placed must be identified and utilized if the dental program is to remain in the forefront of public health sealant initiatives.

Indicator 14: During FY 2003, increase the proportion of the AI/AN population diagnosed with diabetes who obtain access to dental services by 2% over the FY 2002 level.

Rationale: The purpose of this indicator is to improve both oral health status and diabetic control for AI/AN diabetics. Evidence from large-scale dental insurance studies support that people who utilize dental services annually have improved oral health status compared to those who do not. Furthermore, evidence from a study conducted in an IHS setting supported by NIH in collaboration with the State University of New York at Buffalo has shown that diabetic patients experience periodontal disease more frequently and with greater severity than non-diabetics. In addition, this study has shown that reduction/elimination of periodontal disease through clinical treatment results in improved glucose control. Additionally, a growing body of evidence has identified periodontal disease as a significant risk factor for heart attack and stroke.

There has been almost a 10% reduction in the percent of the AI/AN population annually receiving dental services in recent years. This reduction in services has also been manifested in a reduction of services for diabetic patients. Restoring access to both primary and secondary treatment and preventive services for diabetics can lessen periodontal disease progression and the subsequent effects on diabetes and overall health. Improving access and thus increasing utilization of dental services can also result in less costly care, improved health status, and quality of life.

Approach: Individual I/T/U hospitals and clinics provide access to care for diabetic patients in a wide variety of ways. Additionally, the level of dental care that is provided to diabetics varies greatly. An emphasis by dental clinics to provide prioritized access to care for diagnosed diabetics would go a long way to improve the oral health of this population. At a minimum, a yearly examination provides an educational opportunity to enlighten the diabetic on their oral health status and proper home care to reduce periodontal disease and its effect on diabetic control. Those programs with additional time and resources can provide anything from extraction of teeth that are severely involved with periodontal disease to comprehensive

periodontal therapy and dentures. The proposed FY 2003 IHS budget will support the capacity to maintain access at the FY 2002 level in the face of population growth and rising costs of treatment. The 2% improvement target is anticipated from I/T/U diabetes grants that are likely to contribute resources for dental services in the diabetic population.

Data Source: Diabetes registries, yearly IHS Diabetes Care and Outcomes Audit. FY 2002 actual performance level will serve as baseline and will be available July 2003. For the purpose of showing trend data the FY 1999 performance level was 30% and the FY 2000 level was 32%.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.,* This indicator also relates to the HP 2010 objective 21-10 (Oral Health: use of oral health care system).

Program Performance: No FY 2000 or FY 2001 indicator.

Family Violence, Abuse, or Neglect Indicator:

Indicator 15: During FY 2003 the IHS will address domestic violence, abuse, and neglect by assuring that:

a. **at least 85% of I/T/U medical facilities (providing ER and urgent care) will have written policies and procedures for routinely identifying and following:**
    - **intimate partner abuse (IPV)**
    - **child abuse and/ or neglect**
    - **elder abuse and/ or neglect**
b. **at least 60% of I/T/U medical facilities (providing direct patient care) will provide training to the direct clinical staff on the application of these policies and procedures**
c. **a standard data code set is developed for the screening of intimate partner abuse in conjunction with the Family Violence Prevention Fund and AHRQ**

Rationale: This indicator is designed to help ascertain, evaluate and reduce the prevalence of family violence, abuse and neglect in AI/AN communities. The umbrella of family violence includes child, intimate partner, or elder abuse/ neglect. These victims of violence and neglect enter the health care system with a myriad number of physical injuries, illnesses or medical conditions related to this abuse. Known consequences of family violence include decreased health status, as evidenced by the development or exacerbation of multiple medical conditions, depression, suicide and/or homicide.

There is a lack of reliable data on the incidence and prevalence of IPV among AI/AN populations. MMWR recently published the results of a surveillance of homicide among intimate partners in the US (1981-1998). This data indicated that age adjusted annual rates for intimate partner homicide were double for AI/AN people compared to whites, and 1 ½ times greater than US all races. (MMWR)

Victims of IPV can benefit from appropriate office intervention and referral. However, implementation of screening guidelines for IPV has been challenging in most clinical settings. A multifaceted 'systems' approach is needed to provide an effective means to improve domestic violence screening, as well as identification and intervention in health care settings. This approach must begin with the establishment of appropriate tools for domestic violence evaluation, referral and reporting. Managed care organizations have successfully shown improved domestic violence services and improved health plan members experiences through this systems approach. (2)

IHS believes that the first step in this multifaceted systems approach is contingent upon the development and implementation of appropriate policies and procedures. This indicator will assure that policies and procedures that identify violence, abuse and neglect will be developed at local facilities. Successful implementation of the process depends upon staff training as well as cooperation from tribes and local governing bodies.

Approach: The IHS will work with Area Offices to assure that appropriate local policies and procedures are developed and that staff members are trained in these protocols. Policies and procedures are available for download via the IHS Internet.

In addition, IHS will work with the Family Violence Prevention Fund to develop training materials that are specific for AI/AN communities. This training material will be distributed to I/T/U medical facilities.

IHS also plans to enter into a collaborative agreement with the Family Violence Prevention Fund as well as DHHS. This agreement will be designed to facilitate the development of our teaching materials. In addition, this agreement will facilitate the implementation and evaluation of a multifaceted systems approach at pilot sites throughout AI/AN communities.

Finally, we will work to develop a standard code for intimate partner violence screening that can be recorded and retrieved using our RPMS database. This will enable us to track, for the first time, our screening efforts for intimate partner violence.

Data Source: Annual surveys and/ or progress reviews by IHS Area and Headquarters Staff. Baseline data on screening will be based upon a query of 2001 data from RPMS. The lack of an official CPT code for screening significantly hinders our ability to retrieve reliable screening data at this time. Once a standard code has been developed, these codes will be adopted and distributed throughout the I/T/U facilities. These codes will used to categorize and retrieve intimate partner violence data.

Type of Indicator: Process and Balance Scorecard; internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 2.4 *Improve the Safety and Security of Children and Youth,* 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also addresses several HP 2010 objectives in Focus Area 15: Injury and Violence Prevention.

Program Performance: The FY 2001 indicator was to assure that at least 75% of I/T/U medical facilities with urgent care or emergency departments or services have written policies and procedures for routinely identifying, treating, and/or referring victims of domestic violence, abuse or neglect as well as child abuse/ neglect and elder abuse/ neglect. Performance on this indicator in FY2001 was assessed through a survey that was distributed to the Area Offices. The Area Offices then forwarded the survey to their I/T/U facilities. The Area GPRA coordinators collected the responses, and forwarded these to the National Program. This year, the survey was NOT distributed to any sites that did not report ER or urgent care services.

In 2000, a more detailed survey indicated an aggregate compliance rate of 72% for policies and procedures. The current rates for FY 2001, based on 97 sites reporting, are as follows:

a. intimate partner/ spousal abuse – 83%
b. child abuse/ neglect – 82%
c. elder abuse/ neglect – 84%

Averaging these three categories gives an aggregate rate of 83%. The IHS met this indicator, both individually and in aggregate. The following changes were implemented this year for this indicator:

a. the survey was distributed to the area GPRA coordinators, who were responsible for ensuring that the information was collected in a reasonable time period
b. more accurate information—due to # 1, only appropriate sites participated in the survey (as determined by the area coordinators); the denominator for FY01 is less than for FY00. For instance, the California area facilities do not provide ER or urgent care, so were excluded this year (based upon their decision)
c. prototypes and policies—the IHS Women's Web site was established, and has domestic violence/ intimate partner violence policies and procedures available in a downloadable format

1. McCaw B, Berman,WH, Syme SL, Hunkeler EF. Beyond Screening for domestic violence: a systems approach in a managed care setting. AmJ Prev Med 2001 Oct; 21(3) 170-6.
2. Clark, DW. Domestic Violence screening, policies and procedures in Indian Health Service Facilities. J AM Noard Fam Pract 2001 Jul-Aug; 14 (4) 252-8
3.Surveillance for Homicide Among Intimate Partners- US 1981-1998: : CDC Surveillance Summarires: Oct 12, 2001. MMWR 20001; 50 (no SS-3) 1-24.
4. ww.cdc.gov/ncipc/factsheets/natamer.htm

Information Technology Development Group:

The following three indicators address the development of improved automated data capabilities that support clinical care and performance measurement and include efforts to:

- develop test sites to expand automated GPRA clinical data extraction capacity for clinical GPRA measures
- expand distribution and use of the mental health and social services module of the RPMS system across I/T/U settings to improve performance management of behavioral health
- expand IHS compatible data management capabilities at urban Indian program sites to support the contribution of data to the larger IHS and tribal aggregations for planning and performance management efforts, including GPRA.

Indicator 16: During FY 2003, the IHS will continue the development of automated approaches for deriving performance information by:

a. Completing collection of baseline data for any performance measures where electronic data collection was implemented in FY 2002 and continue collection into measurement years,
b. Implementing additional electronically derived performance measures as their accuracy is proven to be sufficient,
c. Distributing semi-automated LOINC mapping tool for IHS's clinical information system to all (100%) I/T/U sites; achieve full local LOINC mapping at 5 sites in addition to the 5 pilot sites.

Rationale: This indicator serves as part of a long-term effort to expand the IHS capacity to derive GPRA performance data directly from clinical automated information systems. This will allow IHS to add new performance measures in the most cost-effective way, without imposing additional data collection burdens on health care staff. It will also support other IHS management efforts – delivering high quality clinical care, managing programs, quality improvement, monitoring epidemiological trends, performing clinical research, etc. This effort is on the cutting edge of medical informatics. To our knowledge, no other healthcare organization, public or private, has developed a large enterprise-wide system that has the capacity to report on a wide range of clinical measures from existing clinical information systems.

Approach:

The IHS's Resource and Patient Management System (RPMS) is a comprehensive information system that integrates clinical, administrative, and financial data in healthcare facilities. The Patient Care Component of the RPMS is an automated system for the collection, storage, and output of data gathered and recorded on a variety of forms or directly into the system at the point of patient contact in the outpatient, inpatient, and field visit settings. It has been implemented with a basic level of uniformity at more than half of the 500 plus IHS, tribal, and urban facilities. Key challenges to our efforts to extract data for performance measures electronically are:

- We need to extract information from over 250 geographically dispersed and, in some cases, very unique clinical information systems/repositories.
- There are no widely accepted, uniform standards for coding or otherwise representing many critical classes of clinical information anywhere throughout the healthcare industry.

- Approximately half of our more than 500 healthcare delivery locations are independently administered and managed tribal or urban sites, not directly operated by IHS.

It is likely that the currently existing data quality in our clinical information systems will already allow us to extract several clinical measures electronically with sufficient accuracy in the short term. We are also certain that many other measures cannot yet be derived electronically with sufficient accuracy because of difficulties in compiling data across facilities due to lack of data standards, or problems with the accuracy and completeness of the data in those systems. To analyze this issue, we are performing a complex study that compares electronically-derived with manual-chart-review-derived measures for potential clinical measures at up to five diverse sites. The data analysis phase of that study is ongoing. The results on a childhood obesity and a Pap measure at one site are complete. The analysis of a diabetes BP control measure at all five sites is nearing completion.

Other work this year has revealed that improvements need to be made in the design of our national database in order for IHS to accurately and routinely perform these clinical measures (as well as improve the accuracy of other national measures and reports). If budgeted monies allow, IHS will design and implement a pilot for a new national data warehouse/data marts during FY 2002. If successful, this pilot will be expanded system-wide during FY 2003. This database will allow IHS to more readily and accurately implement electronically derived clinical measures

Data from this and other studies have already identified problems with both the appropriate recording of data by service providers and the entry of those data by data entry staff. IHS has already begun to implement a pilot web-based training for local facility staff to improve both the recording and entry of data. This intervention includes an evaluation component that will allow us to assess its effectiveness. This pilot intervention will be fully implemented by the winter of 2001. Early draft conclusions about its effectiveness should be available by the winter of 2001, with final results available by summer 2002.

Through the influence of HIPAA legislation and other public and private efforts, more national and international, uniform data standards are being and will be developed and promulgated. For example, LOINC standards for laboratory and other data are now uniformly accepted by most of the healthcare industry and are being implemented within IHS. The IHS's national lab package test file is now mapped to LOINC codes and IHS is collaborating with CDC to develop a capability to semi-automate the mapping of local lab test files (with variations from the national standard file) to LOINC at 5 pilot sites. This tool will facilitate the mapping of individualized local files by automating the majority of mappings, but still will require local I/T/U facilities to manually map their locally specific codes to LOINC and to maintain the mapping for subsequently added codes. We anticipate we will complete this collaborative project with CDC by the end of FY 2002. Once this tool is developed and fully tested, it will be distributed to all other IHS and Tribal sites using the RPMS Lab Package (probably during FY 2003). With lab test name standardization, our ability to compare laboratory and other data across IHS and Tribal facilities (those that implement the LOINC coding) will be improved, thus expanding the number of clinical measures we could potentially perform electronically.

Throughout this process, as we identify performance measures where the data quality and availability of standards is deemed to be sufficient to proceed, we will promptly implement electronic data collection.

Type of Indicator: Process and Balance Scorecard: innovation and learning perspective

Linkages: Ultimately this objective may support the automated collection of most clinical measures and contribute to 3.6 *Improve the Health Status of American Indians and Alaska Natives*.

Program Performance: This indicator stated, "During FY 2001, IHS will:

- Conduct a pilot study at five sites to evaluate the potential of electronically extracting data from the RPMS to report on five clinical performance measures,
- For any of these performance measures where the data quality is deemed to be sufficient to proceed, implement electronic data collection so that baseline data can be collected for FY 2002."
- Begin one or more intervention studies at appropriate sites to resolve data quality problems that are identified in this and previous studies,

This indicator serves as part of a long-term effort to expand the IHS capacity to derive GPRA performance data directly from clinical automated information systems. This will allow IHS to add new performance measures in the most cost-effective way, without imposing additional data collection burdens on health care staff. It will also support other IHS management efforts – delivering high quality clinical care, managing programs, quality improvement, monitoring epidemiological trends, performing clinical research, etc. The indicator was fully accomplished for FY 2001 and highlights of the most promising activities are as follows:

A pilot study was conducted to begin to evaluate the accuracy of using electronically extracted data from the RPMS for various performance measures. Data analyses revealed the following:

- RPMS data on childhood heights and weights have a greater than 97% accuracy when compared to the written chart and were at least as good as the written chart in classifying children as normal, at risk, or overweight (see appended article from "The IHS Provider").
- At a site with both the PCC and the RPMS Lab Package implemented and outside lab results entered, RPMS data were highly sensitive and specific sources for information on whether or not a Pap had been performed for a given patient (see appended article from "The IHS Provider").
- There was remarkable agreement between HQ data derived from the RPMS and the written chart data on whether or not the blood pressures of any given individual with diabetes are "in control" as well as with the overall measure of the numbers of individuals with well-controlled blood pressures.

Data is being collected at the national level to allow electronic reporting on BP control in patients with diabetes. Additionally, changes are being made in RPMS export programs to allow us to begin to gather data so that we will, in time, be able to assess childhood obesity from a national database. Longer-term changes are being begun (e.g., changes in the RPMS export

program, more complete implementation of the RPMS Lab Package, implementation of LOINC in RPMS for lab test names, etc.) to allow better assessment of Pap screening at the national level.

A web-based training tool has been developed and is being tested at 5 IHS locations (Phoenix Indian Medical Center; Whiteriver, AZ; Claremore, OK; Warm Springs, OR; and White Earth, MN). Feedback mechanisms have been developed to allow the participating facilities and facility providers to see how they are performing in regard to data quality and chart documentation for 5 GPRA indicators. Facilities and providers are able to compare their scores with the others participating. Web based teaching modules are being used to train these providers to improve their documentation and data quality. The results from this demonstration will be available in the summer, 2002. If successful, it could be expanded to include other sites and other GPRA indicators.

Indicator 17: During FY 2003, improve the Behavioral Health Data System by:

a. **Assuring at least 50% of the I/T/U programs will report minimum agreed-to behavioral health-related data into the national data warehouse.**
b. **Increasing the number of I/T/U programs utilizing the RPMS behavioral health data reporting systems by 5% over the FY 2002 rate.**

Rationale: The purpose of this indicator is to improve the behavioral health status of AI/AN people. This indicator will help document the agency's ability to improve BH data collection and reporting by offering enhanced and better tools. Better BH data collection and analysis will improve planning, implementation and evaluation of mental health, alcohol and substance abuse, and social services efforts across I/T/U programs.

Audits of the existing I/T/U data systems have documented both lack of reporting and under-reporting of behavioral health related conditions (i.e. depression, alcohol, drug, substance abuse, etc.) and services provided. Improved data collection systems and secondary reporting will provide better quality and more realistic baseline information. This will enhance and complement national, private, and public outcomes monitoring efforts. Improved data options will also support consistent reporting, data aggregation for planning, managed care, and more effective billing and collection for services. This indicator is also essential for monitoring many of the HP 2010 objectives addressing "Mental Health and Mental Disorders, Alcohol, Drug, and Substance Abuse Disorders".

Approach: Improving behavioral health outcomes relies on two important activities: data collection as close to point of care as possible, and data reporting in a standardized way that can be understood across the Indian health system. Standardized data reporting can be achieved by providing a usable, provider-driven and provider friendly computerized application to I/T/U sites.

A key activity beginning in FY02 is the design and implementation of an integrated Behavioral Health system. This system will provide a full range of functions for all aspects of behavioral

health disciplines, i.e., social work, alcohol and substance abuse, psychology, psychiatry, regional treatment centers, etc. The Behavioral Health Design project will identify and document updated functional and technical requirements necessary for an integrated information management system to enhance patient identification and tracking, treatment plans, evaluation of services, and improve third party reimbursement. A multi-phased Interim Solution will address the need for incremental improvements in existing RPMS systems. A graphical user interface (GUI) will be applied to key functions of the existing RPMS systems, Mental Health/Social Services (MH/SS) and Chemical Dependency Management Information System (CDMIS). A GUI will address many existing concerns about ease of use and training, encourage new user, and make data standardization more likely.

Data reporting can also be improved by designing and implementing simplified and standardized data movement mechanisms from sites to the IHS national data repository.(data warehouse) Until recently, the I/T/Us were sending data to multiple sources in multiple formats, making it impossible to ensure the validity and accuracy of data. . The Data Quality Action Team (DQAT) initiative, begun in FY01, has been implementing standardized data movement as well as piloting a data warehouse design that is expected to be implemented at a national level during FY02. Behavioral health data will become a subset, or "data mart", within the overall data warehouse that will eventually be accessible with appropriate permissions for analysis, manipulation and report publishing.

Encouraging data reporting by I/T/Us will result in publishing data in a timely, accessible and useful way is necessary. The IHS Indian Health Performance Evaluation System (IHPES), a performance measurement system initially designed to satisfy Joint Commission on Accreditation of Healthcare Organizations (JCAHO) hospital ORYX standards, has developed a national Mental Health SAS database (from all Mental Health data exported from the Indian Health Service MH/SS package to the national data center for analysis and reporting). The Behavioral Health MIS Workgroup currently is working with IHPES programmers to define and publish via the web a series of statistics. The usefulness of these reports will be improved in an iterative way; as data collection and data reporting increase, and the quality of data improves, these reports will become more accurate and therefore more useful.

Data Source:
a. **Increased data reporting**: sites reporting behavioral health data can be obtained monthly from the Indian Health Performance Evaluation System (IHPES) Team maintaining the Mental Health SAS database (see above).
b. **Increased RPMS use**: Various behavioral health components of RPMS. Each year a survey with a preformatted spreadsheet is sent to all 12 I/T/U Area information system coordinators (ISCs) to complete and update as more programs come online with any behavioral health-related RPMS applications and other commercial BH packages as appropriate.

Type of Indicator: Process and Balance Scorecard: innovation and learning perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 2.4 *Improve the Safety and Security of Children and Youth*, 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the*

Health Status and Identify Threats to the Health of the Nation's Population. This indicator also supports several HP 2010 objectives in Focus Area 18: Mental health and Mental Disorders.

Program Performance: The FY 2001 performance measure was to increase the percent of I/T/Us that have implemented the use of the MH/SS data reporting system by 10% over the FY 2000 level, which was 51.0%. This measure was achieved in FY 2001.

Factors Relating to Performance: The FY 2001 totals for this indicator were taken directly from the national data center "actual" data that was exported and received from all I/T/Us programs by the national data center. This comparative data was based upon data sent to the national data base since 1990. The GPRA report for this indicator in FY 2000 was based upon programs self-reporting the use of this RPMS package, which did not necessarily mean these programs had been exporting data to the national data center.

In FY 2001, further efforts were made to refine the system and analyze data exported to the national data center. Analysis of "actual" sites exporting Mental Health data showed an increase of sites exporting data; a 46% increase in FY 1999, 24.7% increase in FY 2000 and 12.1% increase in FY 2001. If analyzed from 1990 when the system was initiated, a gradual increase in use and data exported from the system would be revealed. The current utilization of "actual" data imported into the national IHS data center by I/T/U is as follows: IHS facilities are exporting data at 72.55% of all Mental Health data, tribal programs at 23.53% and Urban programs at 3.92%.

A new version of the MH/SS MIS package, which combines relevant data items from the Chemical Dependency MIS and the MH/SS MIS was not tested and implemented in FY 2000, as had originally been planned. This package is scheduled to be evaluated and rewritten in FY 02 and FY 03, as noted in the following performance plan.

Performance Improvement Plan: Implementation of a phased approach to an integrated Behavioral Health software application, as described in the *Approach* section above, should help achieve this indicator. Phases will include: 1) providing a BH template containing minimum data fields that can be implemented either manually or electronically; 2) providing a GUI to RPMS for selected behavioral health functions to provide a more intuitive interface to encourage use of existing systems; 3) design an integrated application that incorporates all aspects of behavioral health, to include a GUI; 4) plan and implement a formal deployment and training plan. By demonstrating fairly quickly a more usable system, and promoting the benefits of using standardized data, we believe that sites will be more interested in using the revised RPMS application. Expanding the use of this system continues to be a crucial component of the overall Behavioral Health efforts throughout the IHS, including tribal and urban programs. Recently with the advent of tribal sovereignty and improvements in behavioral health management information systems, many tribal and urban programs are exercising "choice" in the selection of type of Behavioral Health Software utilized. Therefore, improving the overall data entry, collection and storage has increasingly become a significant task ; the IHS serves as a facilitator for overall improved behavioral health management information systems. The IHS through its Information Technology Support Center (ITSC) will be able to provide a warehouse to store national ITU Behavioral Health data that can then be accessed by the ITU system as needed.

Indicator 18: During FY 2003, increase by two sites the number of Urban Indian health care programs that have implemented mutually compatible automated information systems which capture health status and patient care data over the FY 2002 level.

Rationale: The purpose of this indicator is to assure that Urban Indian Health programs develop automated health information systems that support local health program needs as well as provide data for the larger IHS requirements, including GPRA. Adequate health status and health services data are essential for the effective planning and management of any health care delivery system. Currently Urban Indian health programs capture data under the Urban Common Reporting Requirements (UCRR). These data are not currently compatible with other IHS health services data sets and only of limited use for the purpose of health systems management. Thus, the large urban AI/AN population has been minimally represented in AI/AN data sets.

Approach: A workgroup has been formed, comprised of Urban Program health directors to review and revise the UCRR. The revised UCRR will capture an expanded set of data that are compatible with the IHS RPMS system, as well as provide local urban program managers better information about the health status and health services provided to their clients. Until a comprehensive needs assessment is completed it is difficult to estimate the resource requirements of this project; however, attempts will be made to, where feasible, avail the IHS RPMS system to urban programs so that systems are not duplicated. These indicators were developed to help monitor successful development of then updated urban data reporting system. The proposed implementation of two new sites is based on a schedule to provide the incremental hardware and software upgrades as well as urban program staff training.

Data Source: Self-report of Urban health programs.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population* and directly addresses the HP 2010 objective 23-4 (Public Health Infrastructure: data for select populations).

Program Performance: The FY 2001 performance measure was to assure that by the end of FY 2001, at least 30% of the Urban Indian health care programs will have implemented mutually compatible automated information systems which capture health status and patient care data. This target was achieved.

The improvement of planning and defining needs and health conditions was accomplished through monthly conference calls with Urban Area Coordinators and quarterly scheduled planning sessions. The Urban Indian Health Program Directors were involved in planning decisions and consultation on at least a monthly basis to address health needs and concerns.

The Urban Indian health program ascertained through data provided by the Information Technology Support Center (ITSC) that eleven (11) programs have implemented mutually compatible automated information systems. Therefore, the Urban Indian Health Program met its goal with 32% of all programs having implemented mutually compatible automated information systems.

Quality of Care Group:

The following indicators address the quality of health care provided in IHS settings from both the perspective of accreditation, medication errors, and consumer satisfaction.

> **Indicator 19: During FY 2003, maintain 100% accreditation of all IHS hospitals and outpatient clinics.**

Rationale: The accreditation of IHS hospitals and clinics represents perhaps the most objective and respected measure of health care quality and thus the inclusion of this indicator is self-evident. In addition, accreditation is essential for maximizing third-party collections, and contributes directly and indirectly to many other indicators presented in this plan.

Approach: The local I/T/U multidisciplinary team approach to accreditation and ongoing quality management has been the mainstay of success in this important activity. Additional support and guidance from Areas and Headquarters staff will continue to support this indicator. This will be one of the most demanding indicators to meet given the growing clinical quality of care assessments that are required as well as issues related to health facilities maintenance, improvement, and renovation that are critical to accreditation. The accrediting body used for hospitals and some ambulatory health centers is the Joint Commission on the Accreditation of Health Care Organizations (JCAHO). However, there was an increase in the ambulatory health centers that obtained accreditation from the American Association of Ambulatory Health Centers (AAHC).

Data Source: IHS compiled database generated from accreditation reports submitted by IHS Area Quality Assurance coordinators.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Goal 4, *Improve the Quality of Health Care and Human Services*, and Strategic Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives* and broadly supports several HP 2010 objectives in Focus Area 1: Access to Quality Health Services.

Program Performance: The FY 2001, committed to maintaining 100% accreditation of all IHS hospitals and outpatient clinics. This indicator has been achieved. During FY 2001, twelve IHS hospitals were evaluated by JCAHO and all twelve maintained full accreditation. In addition, 11 ambulatory health centers participated in accreditation visits from JCAHO and AAAHC and all were accredited.

Note, this is a new FY 2003 and FY 2002 Indicator

Indicator 20: During FY 2002 and FY 2003, the IHS will asses the current practices for reporting medication errors, develop a standardized non-punitive anonymous medication error reporting system and will develop system improvement recommendations to lower the rate of medication errors to improve the quality of healthcare. This will be done in two steps as follows:

During FY 2003, the IHS will:

a. **Establish baseline data for medication error reporting for all IHS Areas using an approved instrument and compare this national data with other national benchmarks. (While this will not be a true medication error rate, it will allow IHS to see improvement in reporting if the number of reported errors increases over time).**
b. **Pilot test, in two areas, a standardized anonymous medication error reporting system.**

During FY 2002, the IHS will:

Assess the current processes in place in I/T/Us that impact medication error reporting.

a. **Adopt standardized definitions for medication errors for use in I/T/Us.**
b. **Determine where facilities are in the process of medication error reporting.**
c. **Communicate to health care providers and administrators the need for a non-punitive medication error reporting system for all medical errors, not just medication errors or sentinel events.**

Rationale: The intent of this indicator is to improve patient safety by reducing medication errors. Determining the cause of systemic medication errors is essential in assuring quality patient care, and is required for accreditation of hospitals and clinics. As reported in the Institute of Medicine report, "To err is human: building a safer health system," medication errors are quite frequent and cause significant morbidity and mortality and increase costs for patients and health care systems. I/T/U facilities do currently review and monitor medication errors. Unfortunately, different facilities use different systems for reporting and following up on errors. Additionally, the system in place does not require national reporting thereby allowing problems occurring in more than one facility to be addressed by IHS as a whole. Another problem is that many sites still have punitive systems in place that discourage reporting of medication errors. By developing a national anonymous reporting system, IHS will be able to determine a more accurate medication error rate and identify frequent problems throughout our health care system.

Approach: In FY 2002, the IHS will examine the many different medication error reporting processes used throughout the I/T/Us. Approaches used by VA, Department of Defense and the private sector will also be evaluated to identify strategies applicable across our diverse health care system. While many models are available, most are designed for large hospitals and may not meet the needs of many I/T/U ambulatory care sites. Additionally, support functions such as training, and establishing communications networks will need to be examined. Other medical error analysis and intervention will follow (e.g., surgical complications).

Data Source: In FY 2003, baseline medication error reporting data will be obtained from sites using in place local systems including reports to Risk Management Officers and data entered into the Resource and Patient Management System (RPMS).

Type of Indicator: Process/Impact

Linkages: This indicator supports the DHHS Strategic Plan, Goal 4, *Improve the Quality of Health Care and Human Services*, the Secretary's Budget Priority on Medical Errors, and Strategic Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives.*
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Program Performance: No FY 2000 or FY 2001 Indicator.

Indicator 21: By the end of FY 2003, secure baseline consumer satisfaction rates using an OMB approved instrument.

Rationale: The intent of this indicator is to improve consumer satisfaction. Assessing consumer satisfaction is fundamental to quality management, assuring improved customer satisfaction, and required for accreditation of hospitals and clinics.

Approach: In FY 1999 the IHS developed a comprehensive culturally sensitive consumer satisfaction survey instrument that was based on a tested and validated instrument from the private sector. In FY 2000 the instrument and data collection protocol were to have completed the Paperwork Reduction Act clearance process and to be used to identify baseline scores for IHS hospitals and clinics. However, the submission package was delayed in completion and did not reach OMB until late FY 2001. With clearance not anticipated until late FY 2002, the baseline assessment will not be complete until FY 2003 and the follow-up survey to determine improvement in FY 2004.

The responsible parties for implementation are the local I/T/U service sites with assistance from the IHS Area office staff. The local staff will be part of the local quality assurance program and the aggregate staff will be part of the IHS epidemiology centers/program.

Data Source: IHS Consumer Satisfaction Survey

Type of Indicator: Process and Balance Scorecard: customer perspective

Linkages: These indicators support the DHHS Strategic Plan, Goal 4, *Improve the Quality of Health Care and Human Services*, and Strategic Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives.*

Program Performance: The FY 2001 indicator committed to securing OMB clearance on revised consumer satisfaction instrument. The IHS made limited progress in the effort to implement a patient satisfaction survey because of the requirement to resubmit the materials for comment periods on two separate occasions due to revisions made by the agency clearance

officer. The step to obtain full approval of the instrument moved forward again after receiving no public comments from the 30 and 60-day Federal Register Notices publications. It was reviewed by the Department and forwarded to the OMB for final clearance in late FY 2001. Initial plans for implementing the survey has been completed, and we anticipate use of the survey instrument early FY2003 after OMB clearance is received in FY 2002.

Performance Summary Table 2:
Prevention Indicators

Performance Indicator	FY Targets	Actual Performance	Reference
Public Health Nursing Indicator			
Indicator 22: Increase the number of public health nursing services (primary and secondary treatment and preventive services) provided to infants and elders.	**Total Visits** **FY 03:** maintain FY 02 level **FY 02:** +2% over FY 01 **FY 01:** +3% over FY 00 **FY 00:** 7% over 97 or 363,033 **FY 99:** no indicator **Home Visits** **FY 03:** +2% over FY 02 **FY 02:** +2% over FY 01 **FY 01:** +3% over FY 00 **FY 00:** 7% over 97 or 127,846 **FY 99:** no indicator	**FY 03:** **FY:02:** **FY 01:** 4/02 **FY 00:** 371,548 (9.5 % over FY97) **FY 99:** 336,134 **FY 97:** 339,283 baseline **FY 03:** **FY 02:** **FY 01:** 4/02 **FY 00:** 127,873 (7% over 97) **FY 99:** 111,836 **FY 97:** 119,482 baseline	**P:** p. 101 **B:** p. IHS-93
Immunization Group			
Indicator 23: Increase the proportion of AI/AN children who have completed all recommended immunizations by the age two.	**FY 03:** at FY 02 level **FY 02:** +1% over FY 01 level **FY 01:** +1% over FY 00 level **FY 00:** +2% over FY 99 level **FY 99:** 91%	**FY 03:** **FY 02:** **FY 01:** 83% 12 of 12 Areas (-3%) **FY 00:** 86% 12 of 12 Areas (-3%) **FY 99:** 89% 12 of 12 Areas 87% 11 of 12 Areas **FY 98:** 88% (baseline 11 of 12 Areas)	**P:** p. 103 **B:** p. IHS-35 p. IHS-93 p. IHS-99 p. IHS-105
Indicator 24: Increase overall influenza vaccination levels among diabetics and adults aged 65 years and older.	**Influenza** **FY 03:** at FY 02 level **FY 02:** +1% over FY 01 level* **FY 01:** +1% over FY 00 level **FY 00:** 65% **FY 99:** no indicator **Pneumococcal** **FY 03:** no indicator **FY 02:** no indicator **FY 01:** secure electronic baseline **FY 00:** 65% **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 4/02 **FY 00:** 4/02 **FY 03:** **FY 02:** **FY 01:** data not available **FY 00:** data source inadequate	**P:** p. 105 **B:** p. IHS-35 p. IHS-93 p. IHS-99 p. IHS-105 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.

Performance Indicator	FY Targets	Actual Performance	Reference
Injury Prevention Group			
Indicator 25: Expand the number of tribes/tribal organizations with comprehensive injury prevention programs	**FY 03:** maintain at least 25 sites **FY 02:** maintain at least 25 sites* **FY 01:** no indicator **FY 00:** no indicator	**FY 03:** **FY 02:** **FY 01:** **FY 00:** baseline 25 sites	**P:** p. 106 **B:** p. IHF-33 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 26: Reduce the number of unintentional injuries for AI/AN people.	**Deaths** **FY 03:** maintain or reduce FY 02 rate **FY 02:** at FY 01 rate, or less **FY 01:** no indicator **FY 00:** no indicator **FY 99:** 93/100,000 **Hospitalizations** **FY 01:** 70 per 10,000 **FY 00:** 71.5 per 10,000	**FY 03:** **FY 02:** **FY 01:** **FY 00:** **FY 99:** 2 /02 **FY 96-98**: 94.7/100,000 deaths **FY 94-96:** 92.6/100,000 deaths **FY 92-94:** 95.0/100,000 deaths **FY 01:** 4/02 **FY 00:** 4/02 **FY 98:** 72.5 /10,000 hosp. **FY 96:** 74.7/10,000 hosp.	**P:** p. 107 **B:** p. IHF-33 p. IHS-93 p. IHS-99 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Suicide Prevention Indicator			
Indicator 27: Increase percentage of I/T/Us that have implemented a suicide surveillance system to monitor the incidence and prevalence rates of suicidal acts (attempts and completions) which assures those at risk receive services, and that appropriate population-based prevention interventions are implemented**.**	**FY 03:** + 5% over FY 02 level **FY 02:** + 10% over FY 01 level **FY 01:** 50% of I/T/Us implem. **FY 00:** no indicator **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 12% of I/T/Us implem. **FY 00:** **FY 99:** **FY 98:** estimated 25%	**P:** p. 109 **B:** p. IHS-55

Performance Indicator	FY Targets	Actual Performance	Reference
Developmental and Prevention and Treatment Group			
Indicator 28: Collaborate with NIH and AI/AN sites in developing and implementing culturally sensitive community-directed pilot cardiovascular disease prevention programs.	**FY 03:** Evaluation implemented and 1 site added **FY 02:** 3 sites implementing interventions **FY 01:** 3 sites with intervention plans **FY 00:** no indicator **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 3 sites with intervention plans	**P:** p. 110 **B:** p. IHS-99 p. IHS-35
Indicator 29: Develop an overall 3 element IHS obesity prevention and control plan based on findings from emerging research and recent projects in AI/AN settings.	**FY 03:** implement a 3 element obesity prevent./treat. plan **FY 02:** develop a 3 element obesity prevent./treat. plan* **FY 01:** implement obesity prevention program and monitor pilots and comparisons sites **FY 00:** establish five pilot sites **FY 99:** develop approach and baselines	**FY 03** **FY 02:** **FY 01:** implementation and monitoring commenced at sites **FY 00:** pilot sites established **FY 99:** approach and baseline accomplished	**P:** p. 113 **B:** p. IHS-35 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 30: Develop an overall IHS tobacco control plan based on findings from CDC sponsored AI/AN tobacco control pilot sites.	**FY 03:** develop 5-year tobacco control plan for IHS **FY 02:** commence all prescribed control activities in 5 sites **FY 01:** establish 5 tobacco control centers **FY 00:** establish baseline rates for tobacco usage **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 7 tobacco control centers established **FY 00:** baseline rates established	**P:** p. 116 **B:** p. IHS-35

Performance Indicator	FY Targets	Actual Performance	Reference
HIV/AIDS Group			
Indicator 31: Maintain ongoing surveillance of HIV/AIDS and determine the level of completeness of reporting.	**FY 03:** +2 Areas assessed **FY 02:** 3 Areas assessed* **FY 01:** one Area assessed **FY 00:** establish baseline rates **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** Area baseline partially established **FY 00:** partially established	**P:** p. 118 **B:** p. IHS-35 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 32: Increase the percentage of high risk sexually active persons who know their HIV status and have received risk reduction counseling.	**FY 03:** +5% over FY 02 **FY 02:** secure baseline in 3 new Areas* **FY 01:** Establish baseline **FY 00:** no indicator **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01**: baseline for limited sites **FY 00:** no baseline	**P:** p.120 **B:** p. IHS-35 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Environment Surveillance Indicator			
Indicator 33: Implement automated web-based environmental health surveillance data collection system in tribal systems.	**FY 03:** +15% over FY 02 level **FY 02:** implement in at least 10 tribal sites* **FY 01:** 15% of communities assessed **FY 00:** develop surveillance protocol and plan **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** automated system distributed to all IHS field sites **FY 00:** protocol and plan partially completed **FY 99:** no surveillance systems in place	**P:** p. 122 **B:** p. IHF-33 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Total Prevention Funding :	**FY 03: $125,387,000*** **FY 02:** $121,010,000* **FY 01:** $116,124,000* **FY 00:** $109,216,000 **FY 99:** $102,712,000 **FY 98:** $99,647,000 *includes accrual costs		**P:** page # in perform. plan **B:** page # in budget justif.

B. FY 2003 Prevention Indicators:

Public Health Nursing Indicator:

Indicator 22: During FY 2003, maintain the total number of public health nursing services (primary and secondary treatment and preventive services) provided to neonates, infants, and elders in all settings and the total number of home visits at the FY 2002 workload levels.

Rationale: The purpose of this indicator is to improve the health status of AI/AN people through maintaining access to services associated with improved health outcomes. Public Health Nursing (PHN) is the integration of nursing practice and public health practice applied to the prevention of disease and the promotion and preservation of the health of Indian population. The nature of this practice is continuous and comprehensive, including all program areas and diagnostic groups. It includes primary and secondary treatment and preventive services, counseling, education, community development and referral follow-up. Many of the successes in Indian health such as a decrease in infant mortality, high immunization rates, and increased prenatal care are attributed to the efforts of public health nursing.

The unique quality of PHN service is that care can be provided in any setting where the patient is accessible. This is especially effective for high-risk patients and families (e.g., substance abusing prenatal patients, communicable disease cases, families with dysfunctional life styles, etc.). Settings include homes, schools, jails, bars, and other community locations in addition to the health clinic. The ability to meet the patient in their own environment allows the PHN to fully assess socioeconomic and quality of life variables that affect health status and facilitates rapport with patients who often distrust the formal health care system.

Causes of health problems are multi-factorial and interventions must be multidimensional in order to be effective. Measuring the direct impact of public health nursing services can be accomplished in a variety of models. Many of the GPRA indicators (diabetes, prenatal care, immunizations, well child care, obesity) require a strong public health nursing contribution in order to be successful and to demonstrate evidence-based outcomes. The impact of home visiting with education and counseling services is more challenging to directly measure. Home visiting is generally accepted as a means to improve access to care and to impact on health status of individual patients, families and the community as a whole. Research ("Home Visitation and Maternal and Child Health – Kitzman et al, *Journal of the American Medical Association,* August 27, 1997 and "Enduring Effects of Nurse Home Visitation on Maternal Life Course – Kitzman et. al., *Journal of the American Medical Association,* April 19, 2000) supports this contention and concludes (after extensive controlled trials in which multiple outcome indicators were studied) that a "program of home visitation by nurses can reduce pregnancy-induced hypertension, childhood injuries, and subsequent pregnancies among low-income women". Other research (Long-term Effects of Nurse Home Visitation on Children's Criminal and Antisocial Behavior – Olds et.al., *Journal of the American Medical Association,* October 14, 1998) shows that adolescents born to women who received nurse visits during pregnancy and postnatally and who were unmarried and from households of low socioeconomic status (risks for

antisocial behavior) reported fewer instances of running away, fewer arrests, fewer convictions and violations of probation, fewer cigarettes smoked, and fewer days of having consumed alcohol. Therefore, public health nursing workload, especially community based visits and home visits, is used as measure of program effectiveness and an overall indicator of health status of the community.

Approach: The population base for public health nursing services is the IHS census population residing within the official boundaries of the Area. The PHN/RRM standard indicates that PHN program addresses the needs of the community and therefore the appropriate target population is census population. However in some service units, the user population is greater than the reported census population. In these cases, the Indian user population is used as an estimate of the service population to reflect PHN service to both stable community and transient populations.

Providing access to PHN services is directly dependent upon the availability of community-based resources, particularly recruiting and retaining PHN providers. Strategies for increasing access to care and marketing healthy life style behaviors includes targeting high-risk patients based on community epidemiological data. Newborns, infants, pregnant women, and elders are targeted high risk populations in Indian communities both from an individual perspective based on their high-risk status and from a psychosocial perspective based on their contributions to healthy family and community life.

Data Sources: IHS PCC, IHS Program Statistics Team, and written reports submitted by Tribes using non-RPMS systems. Workload data will be verified using RPMS procedures described on page 147 and analyzed to define the baseline for the objective. IHS nursing staff is currently working with data management staff to refine data collection and analysis processes which would allow workload breakdown by both age categories (newborn, infant, elder) and by diagnostic category (teen pregnancy, family planning, anticipatory guidance to parents, SIDS prevention, health promotion for the elderly wellness). This will provide a more in-depth perspective of the breadth of public health nursing services and the targeting of high-risk populations. FY 2000 services were 88,230 total and 18,306 for neonates and infants and 69,924 for elders.

Type of Indicator: Process/Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also broadly supports a multitude of HP 2010 objectives.

Program Performance: FY 2001 data is over 95% complete and will be available by4/01. The FY 2000 performance indicator committed to increasing the total number of Public Health Nursing services and the number of home Public Health Nursing visits to the AI/AN population by 7% over the FY 1997 level. This indicator was met based on comparison of the FY 1997 and FY 2000 Public Health Nursing productivity reports. In FY 1997, the total Public Health Nursing visits were 339,283 and the home Public Health Nursing visits were 119,482. The FY 2000 Public Health Nursing report reflects that 371,548 total Public Health Nursing visits were

provided (9.5% increase) and 127,873 home Public Health Nursing visits were provided (7% increase).

Immunization Group:

The following two indicators support immunization coverage in children and adults at high risk for preventable diseases and represent perhaps the most efficacious "impact" interventions known to public health.

> **Indicator 23: In FY 2003, maintain FY 2002 levels in the proportion of AI/AN children who have completed all recommended immunizations for ages 3-27 months, as recommended by Advisory Committee on Immunization Practices.**

Rationale: The purpose of this indicator is to reduce the incidence of vaccine-preventable diseases. Immunizations are one of the most cost-effective public health measures available for improving health outcomes in children and are a recognized standard of care and a standard of public health. Thus, immunization coverage rates are a sensitive measure of the status of public health services.

Approach: IHS clinics and Public Health Nursing programs currently provide childhood immunizations to children 3–27 months during routine well child visits, immunization clinics and home visits. They collaborate with State immunization programs such as the Vaccines For Children program to ensure that all AI/AN children receive the recommended childhood vaccines by the age of 2 years. Patient/parent education and use of reminder/recall are part of the strategy. The proposed FY 2003 IHS budget will support the capacity to continue these activities and maintain current immunization coverage levels in the face of population growth.

Data Source: Percent of children 3–27 months vaccinated appropriately for age will be calculated based on information collected in the quarterly immunization reports currently provided by each Area. Vaccines evaluated include Diphtheria/Tetanus/Pertussis (DTAP), polio (IPV), Measles/Mumps/Rubella (MMR), Haemophilus influenzae type b (HIB), and Hepatitis B (HBV). IHS completes these reports on a quarterly basis, using IHS patient care records and public health nursing records of children 3–27 months who receive immunizations at an IHS facility.IHS will be primarily responsible for completing the reports.

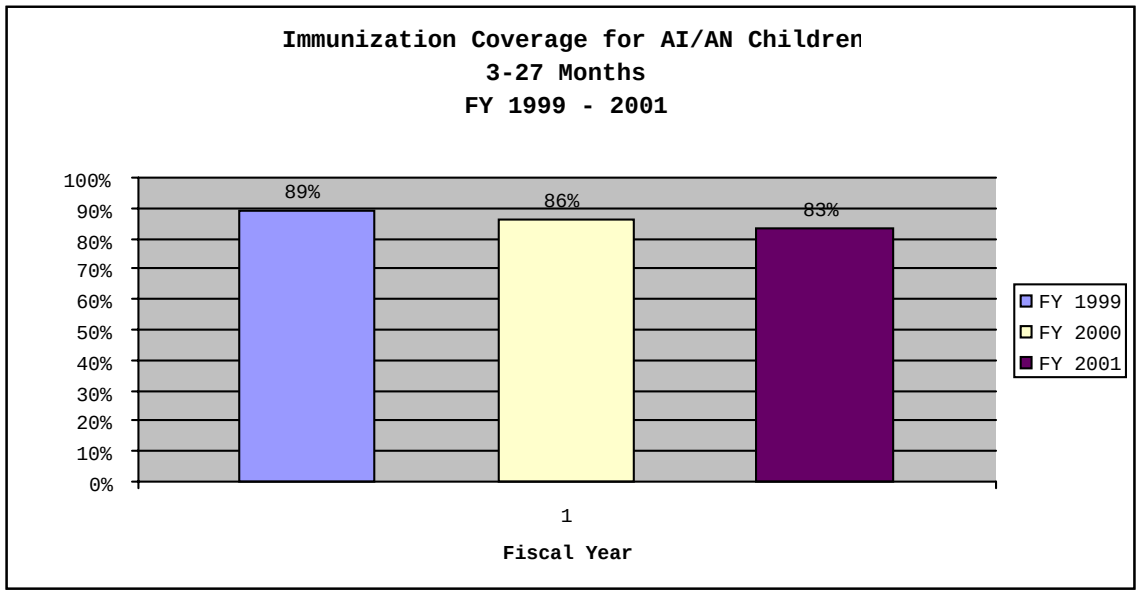
Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also directly addresses the HP 2010 objectives in Focus Area 14: Immunizations and Infectious Diseases. This indicator also supports the IHS/Head Start partnership in assuring the AI/AN Head Start children complete their health care performance standards.

Program Performance: The FY 2001 performance indicator was to reduce the incidence of preventable disease by increasing the proportion of AI/AN children who have completed all recommended immunizations for ages 0-27 months (as recommended by Advisory Committee on Immunization Practices) during FY 2001 by 1% over the FY 2000 rate. Because of the way the data is collected, there are two modifications to the indicator.

1. Data is collected on children 3 – 27 months, not 0 – 27 months.
2. Data is collected on a quarterly basis. Because the same child may be eligible for immunization in each quarter as they move through the age cohort, the totals for the year do not represent individual children. We can, however, determine the number of vaccination opportunities in FY 2001, and the number of vaccination opportunities that were realized. "Immunization opportunities" are defined as the number of times in FY 2001 that children were eligible to receive a vaccine. "Realized immunization opportunities" means the child received the required vaccination.

The percent of immunization opportunities for children 3–27 months that were realized in FY 2000 was 86%. The FY 2001 goal was 1 % higher, or 87%. Based on quarterly reports from all 12 IHS areas for FY 2001, the proportion of immunization opportunities for AI/AN children 3 – 27 months that were realized was 83%; the FY 2001 performance measure of 87% was not achieved.



Reasons for not meeting the FY 2001 performance indicator include:

- Vaccine delays and shortages, specifically the DTaP vaccine.
- Vacancies in positions essential for the delivery, tracking and reporting of immunizations (i.e. public health nurses, medical records staff)
- An increasingly complex immunization schedule as new vaccines are added
- Incomplete tracking due to the multiple sources of health care (many non-IHS)
- IHS immunization computer program not fully utilized at many local facilities

Steps taken to address challenges:

- IHS is working with CDC and state immunization programs to prioritize limited vaccine supply to ensure the highest risk and most vulnerable children receive priority
- IHS is addressing agency-wide recruitment and retention problems
- IHS collaborated with CDC to develop and disseminate a poster and a brochure specific to AI/AN communities focused on the importance of immunizations
- A contract is currently in place to update the IHS immunization computer program to facilitate the export of IHS data into state immunization registries. This will improve immunization tracking and facilitate use of the IHS computer program for local tracking of immunizations.

Indicator 24: In FY 2003, maintain FY 2002 influenza vaccination rates among non-institutionalized adults aged 65 years and older.

Rationale: The purpose of this indicator is to reduce morbidity and mortality due to influenza and pneumococcal disease among adults. Improving immunization coverage rates for influenza and pneumococcal disease among adults will reduce the incidence of these diseases. Immunizations are one of the most cost-effective public health measures available for improving health outcomes. In addition, adult vaccination coverage rates are a sensitive measure of the status of clinical preventive services.

Approach: IHS clinics are encouraged to provide pneumococcal and influenza vaccine to adults 65 years old during clinic visits and during mass immunization clinics. Educating patients is a part of the strategy to ensure pneumococcal and influenza vaccines are provided. The proposed FY 2003 IHS budget will support the capacity for sites to continue existing strategies and maintain current immunization coverage levels in the face of population growth.

Data Source: Vaccination coverage rates will be calculated for a sample of IHS service population adults aged 65 years and older, using IHS patient care records and public health nursing records. Pneumococcal vaccination coverage rates will be based on evidence that an individual has ever received pneumococcal vaccination. Influenza vaccination rates will be based on having received vaccination within the year.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 2.5 *Increasing Opportunities or Seniors to Have an Active and Health Aging Experience*, 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* It also directly addresses the HP 2010 objectives in Focus Area 14: Immunizations and Infectious Diseases.

Program Performance: The FY 2000 and FY 2001 Performance Report will be completed 4/02 when analyses of the full automated patient record databases for both years are completed.

The delay in the FY 2000 report is the result of moving from a sampling approach to analysis of the entire database.

Injury Prevention Group:

The following two indicators address the process and outcome of comprehensive community-based injury prevention efforts across I/T/U settings.

> **Indicator 25: During FY 2003, maintain the number of tribes/tribal organizations that meet the criteria standards of IHS comprehensive injury prevention programs at the FY 2002 level.**

Rationale: The purpose of this indictor is to reduce injury rates in the AI/AN population by the expansion of community based prevention technologies. Beginning in the early 1970s the IHS began a public health campaign to address this leading killer of AI/ANs. The early prevention efforts were based upon established Health Education/Health Behavior theories. Despite some success in raising awareness and some changes in human behavior, it was clear that a comprehensive public health approach would be needed to make a significant impact. The program began an aggressive injury surveillance effort in the early 1980s that created and empowered community coalitions and implemented evidenced-based strategies. The next and final step to this 30-year history in Indian Injury Prevention was the application of a community capacity building approach with the intent of developing the local public health capacity of tribes to significantly reduce injuries in their community's settings. This systematic process includes training, core-funding base, partnerships, implementing interventions, and technical assistance as needed.

These efforts have contributed to a 54 percent reduction in all injury related deaths between 1972 and 1996 and the expansion of the community capacity building approach is thus justified and represents the primary means to accomplish Indicator 26. Initially, IHS had hoped to increase the number of tribal injury prevention organizations each year, but that requires an annual increase in funding. Indian Health Service will continue to seek external partners to fund additional tribal injury prevention organizations, but until additional funds are located, efforts are being focused on the continued success and growth of the original 25 programs.

Approach: In FY 2000 IHS awarded approximately $1.25 million dollars to tribes to establish comprehensive injury prevention programs. This was part of the IHS Five Year Strategic Plan for Injury Prevention. These 25 new programs are receiving $50,000 per year for 5 years to hire a full time injury prevention coordinator, form an injury prevention advisory group, conduct basic injury surveillance, form partnerships, and begin to implement strategies to target those at risk for injuries, such as occupant protection, impaired driving, house fires, domestic violence, etc. Because technical assistance and support is so critical to new programs, IHS Area and District Injury Prevention Specialists are engaged partners with these new tribal programs, and provide expertise in training, injury data collection, and evaluation. Experts in the field of community-based injury prevention have also been hired to provide technical assistance and support to all new tribal injury prevention programs.

Data Sources: Determining the implementation of comprehensive injury prevention programs will be determined from the use of a criteria-based survey of local I/T/U by each IHS Area Injury Prevention Specialist.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: These indicator supports the DHHS Strategic Plan, Strategic Objectives 1.2 *Reduce the Number and Impact of Injuries*, and 3.6 *Improve the Health Status of American Indians and Alaska Natives.* It also directly addresses the HP 2010 objectives in Focus Area 15: Injury and Violence Prevention that relate to unintentional injury prevention.

Program Performance: No FY 2001 indicator

Indicator 26: During FY 2003, assure that the unintentional injury-related mortality rate for AI/AN people is no higher than the FY 2002 level.

Rationale: Injuries are a leading cause of hospitalization for AI/AN people relative to morbid events. Annually, forty six percent (46%) of the Years of Potential Life Lost (YPLL) for AI/AN people are the result of injuries. Furthermore, injuries are the number one cause of mortality for AI/AN people for ages 1-44 years and third for overall death rates. The IHS spends more than $150,000,000 annually for the treatment of non-fatal injuries. The single largest expenditure of contract medical care funds is for the treatment of injuries. However, the systematic implementation of safety protocols through partnerships with tribes and outside agencies has demonstrated significant improvements in injury rates across AI/AN communities and will serve as models for further diffusion of these technologies.

Because the most recent data for unintentional injury mortality (CY 1996 – CY 1998) shows an increase from the previous year, the target was changed for FY 2003 from decreasing the rate to maintaining the previous year's rate.

Approach: The IHS has assigned an Injury Prevention Program Manager, in the Office of Public Health, at Headquarters who coordinates activities and resources with specially trained Injury Prevention Specialists at the Area, District, Service Unit and tribal levels. This program employs a community empowerment model based upon Dr. John Farquar's work at Stanford University (1985). Primary program emphasis is directed to building the capacity of tribes to recognize severe injury problems and employ evidence-based strategies to prevent or otherwise control injury outcomes. The Complete Injury Prevention Program model developed by IHS is the cornerstone of community-based intervention measures.

The IHS Five-Year Injury Prevention Strategic Plan identified the need for basic capacity building and investments in tribal and Federal infrastructures for the development of effective injury prevention programs. Since 1990, Congress has appropriated over $5.3 million to injury prevention programs and competitively based intervention projects. In 1997 the Director, IHS, supported a national demonstration grant announcement for basic public health infrastructure projects within tribes. Approximately $300,000 was awarded for 12 tribal project sites. In

addition to these projects, literally hundreds of Indian communities and Alaska Native villages are implementing proven injury prevention strategies associated with safe home and communities.

Most of the unintentional injury problem is related to motor vehicle crashes. Significant improvements can be made in these statistics with increases in use of occupant protection [safety belts and child safety seats], reducing pedestrian/motor vehicle collisions and reductions in alcohol-related injuries through multiple strategies including corrections in the physical environments, changes in tribal policies and health promotion/education. These injury measures are identified in the HP 2010 Objectives and are relatively easy to measure.

In FY 2000 IHS implemented over a $1 million dollar cooperative agreement program with tribes to establish local injury prevention programs to address injuries. Other new initiatives are targeting childhood fire-related deaths through the *Sleep Safe* program in conjunction with Head Start schools, and continued work with our partners such as the Centers for Disease Control, the National Highway Traffic Safety Administration, the Maternal and Child Health Bureau at HRSA, and the US Fire Administration.

Data Source: In its original form from the FY 1999 performance plan, this indicator targeted injury mortality as the performance measure. However due to the time lag of 2-3 years in the release of official injury mortality data from the National Center for Health Statistics (NCHS), IHS determined that unintentional injury-related hospitalization rates would be an adequate measure for the rate of unintentional injuries and available much sooner. However, efforts to apply this approach FY 2000 and FY 2001 revealed that the hospitalization data do not accurately reflect the number of unintentional injury cases that are hospitalized in IHS or tribal hospitals. Due to coding omissions, cause of injury codes are often not noted, therefore are drastically undercounted. Thus for FY 2002, the IHS will again depend on adjusted death rates generated from the official injury mortality data from the NCHS.

To obtain the numerator, the following methodology will be used: Include unintentional injury-related deaths with the following Ecodes: E800 – E949 that were recorded for AI/AN in the most current years available. These data are furnished to IHS from NCHS. NCHS receives vital event statistics from birth and death records for all U.S. residents from the State departments of health, based on information reported on official State birth and death certificates. Because of miscoding of Indian race on State death certificates, IHS adjusts these data for miscoding of race. The denominator will be the projected Service Population.

Type of Indicator: Outcome and Balance Scorecard: internal perspective

Linkages: These indicators support the DHHS Strategic Plan, Strategic Objectives 1.2 *Reduce the Number and Impact of Injuries*, and 3.6 *Improve the Health Status of American Indians and Alaska Natives.* It also directly addresses the HP 2010 objectives in Focus Area 15: Injury and Violence Prevention that relate to unintentional injury prevention.

Program Performance: The FY 2000 and FY 2001 performance reports will be available by 4/02 and the FY 1999 will be available by 2/02.

Suicide Prevention Indicator:

Indicator 27: During FY 2003, increase by 5% over the FY 2002 level, the proportion of I/T/Us that have implemented systematic suicide surveillance and referral systems which include:

a. monitoring the incidence and prevalence rates of suicidal acts (attempts and completions)
b. assuring appropriate population-based prevention and interventions are available and services are made accessible to individuals identified at risk

Rationale: This indicator is part of an expanding systematic effort at reducing the prevalence of suicide in the AI/AN population. The suicide death rate for the AI/AN population has actually increased in the 1990s and is currently 72% greater than the national average. This problem has been particularly devastating for a number of AI/AN communities that have experienced dramatic increases in adolescent suicides in recent years and represents one of the greatest tragedies the IHS must address. The implementation of local suicide surveillance and prevention projects has been successful in reducing suicide acts in several Indian communities. The obvious goal of diffusing intervention approaches and learning from successful programs to other AI/AN settings is to reduce suicide acts in the AI/AN population as quickly as possible.

Approach: The I/T/Us will be responsible for reporting the implementation of protocols to the national data center that will compile and analyze all reported data. A suicide surveillance and prevention system was developed in the Albuquerque IHS Area (National Suicide Prevention Project with the Center for Disease Control and Prevention). A suicide surveillance instrument that identifies potential high-risk individuals has been developed and is currently being used in clinics and case management systems have been piloted. Numerous clinics, hospitals and behavioral health programs are currently using suicide surveillance protocols and now simply need to be identified and counted. A suicide surveillance and prevention system is being encouraged for use in I/T/Us to assure the routine suicide screenings and case management are tailored to the needs and resources of each site

Data Source: Local programs will send reports to the national ITSC with identified data sources linked with RPMS as appropriate. Refinement of data source activity will remain with the 7 IHS Areas that are currently reporting data to the ITSC.

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.2 *Increase the Availability of Primary Health Services*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This indicator also directly supports several HP 2010 objectives in Focus Area 18: Mental Health and Mental Disorders that address the incidence of suicide.

Program Performance: The 2001 indicator committed to reducing suicide rates by assuring that by the end of FY 2001, at least 50% of the I/T/U programs will have implemented a suicide

surveillance system to monitor the incidence and prevalence rates of suicidal acts (ideation, attempts, and completions) which assures those at risk receive services, and that appropriate population-based prevention interventions are implemented. The FY 2001 indicator was not met with only 28 I/T/U sites out of 227 (12%) that reported suicide data monitoring rates of ideation, attempts and completions in FY 2001.

Reasons for not meeting the indicator include inability to establish uniform and compatible reporting systems among the I/T/U programs and inadequate support for technical assistance and equipment. Corrective action taken in FY 2001 was to establish priority for behavioral health data improvement. Provision of additional resources allowed many local behavioral health programs to obtain and upgrade data systems in FY 2001.

Other strategies to improve performance include the establishment of a national behavioral health data work group which will focus on completion and implementation of an integrated behavioral health MIS, establishment of a baseline of all reporting programs, assuring articulation among the different data systems and using the national Information Technology Support Center (ITSC) for support. The ITSC will facilitate and provide technical support to Areas for I/T/U system-wide improvement for data collection and analysis. The work of the workgroup in FY 2002 will provide additional information that may define a more appropriate suicide prevention indicator for FY 2003.

Developmental Prevention and Treatment Group:

The following three indicators represent efforts to identify and disseminate the finding and learning from research and demonstration projects addressing significant chronic diseases afflicting AI/AN people. These measures target the development and implementation of effective prevention and treatment programs to address cardiovascular disease, diabetes and tobacco use.

> **Indicator 28: During FY 2003, the IHS will continue collaboration with NIH to assist three AI/AN communities to implement culturally sensitive community-directed pilot cardiovascular disease prevention programs and initiate expansion into at least one new AI/AN site.**

Rationale: The purpose of this indicator is to collaborate with NIH and AI/AN communities in the development of community-directed culturally sensitive prevention programs to address cardiovascular disease and serve as models for diffusion to other AI/AN communities. Cardiovascular disease represents the single largest cause of death for AI/AN people above the age of 45. Furthermore, cardiovascular disease can be viewed as a complication of diabetes because of the much higher incidence of cardiovascular disease in diabetics. Within segments of the AI/AN population the prevalence of diabetes is the highest in the world while other segments with historically low diabetes rates are now experiencing dramatic increases. The diabetes death rate for AI/AN increased by almost 13 percent between the period of 1992-94 and 1994-96, and there is no evidence from any subgroup that the problem is lessening anywhere. A growing body of evidence supports that the approaches currently available to prevent the onset of heart disease

and diabetes, and in some cases reverse their early stages, are the control of diet and exercise. Tobacco usage is also an important risk factor that must be addressed.

Over the past two years, the IHS has collaborated with the NIH National Heart, Lung, and Blood Institute and three AI/AN sites to assess their readiness to develop locally-directed cardiovascular disease prevention interventions that utilize community empowerment and other recognized models of behavioral change that can be tailored to be culturally appropriate.

Approach: The approach for this indicator is focused on collaborating to enhance long-term community commitment and capability in developing approaches to the prevention of cardiovascular disease at three AI/AN sites. This process will be mutually supported by IHS and NIH and will intentionally avoid a largely prescriptive approach from "outside experts" for program development but rather assist these communities in developing the capabilities internally to apply intervention technologies that are culturally tailored to these communities" social environment.

Clearly identifying approaches to the integration of tobacco cessation, diet control, exercise and fitness activities into the local culture can be best accomplished by the bringing together the knowledge of evidenced-based practices and theories (i.e., social learning theory, self-efficacy, etc.) with the knowledge of local culture, beliefs and practices. The FY 2002 target is the actual implementation of the each site's primary prevention program, the selection of clinical tracking measures to assist in evaluating the success of the community interventions. FY 2003 will include complete evaluation of Phase II: Education and Outreach and each Tribe will determine how to improve data collection so we can begin data measurement of the incidence of cardiovascular disease. In addition, at least one new AI/AN site will be added for FY 2003.

Potential interventions adopted are likely to vary considerably based on the tailoring process and support requested by sites but may include:

- organization-based fitness and diet control programs (worksites, churches)
- school-based fitness and diet control programs
- education programs for Head Start, high school and college
- social marketing of healthy practices through available media sources (radio, TV, newspapers, social events, the web)
- use of field public health staff to reach families in homes or other sites (e.g., public health nurses, health aides, health educators, dieticians and nutritionists)
- integration of traditional healing practices
- expanded clinic-based fitness and diet control intervention

While the evaluation must be linked to the nature of the interventions the potential levels of evaluation that are likely to be developed included:

Long term – death and disease rates
Intermediate – observed or reported changes in risk factors (behavioral changes)
Short term – observed or reported changes in knowledge or attitudes
Immediate – activity implementation and monitoring

Data Source: Selected and developed by each local site, consistent with interventions, to be tracked through RPMS:

- Blood Lipids (% of appropriate patients assessed, % abnormal LDL, TG, HDL; % treated; % at goal)
- Hypertension (% of adults with HTN, % treated, % at goal)
- Tobacco rates: Using the Health Factors Taxonomy: i.e. documentation and coding on the PCC using the IHS Patient Education Protocols and Codes
  - Tobacco Usage Rates
  - Number of Clients in Tobacco cessation programs,
  - Number of people who have successfully quit (Quit = not had a cigarette in a year)
  - Obesity rates measured by BMI
- Tracking of Patient Education on exercise using the IHS Patient and Family Education Protocols and Codes

Additional Indicator being tracked by sites:

- Monitor number of people who received Medical Nutrition Therapy (MNT)
- Numbers and percentages of appropriate patients on preventative aspirin (and +/- ACE-I if diabetic).

Type of Indicator: Impact and Balanced Scorecard: innovation and learning perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 1.3 *Improve the Diet and the Level of Physical Activity of Americans*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This objective is likely to support several HP 2010 objectives including many under section 12 (Cardiovascular Disease and Stroke), section 19 (Nutrition and Overweight), 5-7 (Diabetes: cardiovascular deaths), and Focus Area 22 (Physical Activity and Fitness)

Program Performance: The FY 2001 indicator committed the IHS to collaborate with NIH to assist three AI/AN communities develop culturally sensitive, multidimensional, community - directed pilot cardiovascular disease prevention programs. The indicator was fully met in all three sites. Understandably each site proceeded at it's own pace to achieve full implementation of the intent of the 2001 Indicator. In essence this indicator is a summary of 2-3 years of planning efforts by the NIH National Heart, Lung, and Blood Institute, the Indian Health Service, and three American Indian communities. It is unique in that it moves away from the "medical model" to a prevention model to assist Native American communities to develop *community-directed* cardiovascular disease prevention interventions that utilize community empowerment and other recognized models of behavioral change that can be tailored to be culturally appropriate. While being designated primarily as a *community-directed* cardiovascular prevention program (versus a "medical model" program), clinical data sources will be used to track cardiovascular disease.

The parameters of this indicator demonstrate support of IHS leadership and its attempt to establish collaborative partnerships with other governmental agencies. The eventual scope of this project will require a working relationship with not only the NIH (and the Laguna Pueblo of New Mexico, the Ponca Tribe of Oklahoma, and Bristol Bay, Alaska) but will require a working

relationship with other governmental agencies such as the Centers for Disease Control, Head Start, and BIA.

All three sites independently agreed that their respective *community-directed* prevention programs must address several risk factors which contribute to the risk of cardiovascular disease: the control of hypertension, obesity, diet and exercise. Another important risk factor that will be addressed at all three sites is tobacco usage. The selection of risk factors on which to focus the community-directed interventions on cardiovascular disease will assist the IHS, and these three tribal sites, to meet other GPRA Indicators such as GPRA Indicator #3: Blood Pressure Control, GPRA Indicator #4: Cholesterol and diet, GPRA Indicator #29: Childhood obesity.

Indicator 29: During FY 2003, begin implementation or continue implementation all components of the Indian health system obesity prevention and treatment plan developed in FY 2002 that include:

- **a multidisciplinary stakeholder obesity prevention and treatment planning group**
- **a staff development and IT development plan to assure securing height and weight data for all system users to monitor AI/AN population obesity**
- **an infrastructure to collect, interpret and diffuse the approaches from obesity related demonstration projects and studies to IHS Areas and I/T/Us**

Rationale: This indicator is part of a comprehensive long-term effort to identify effective interventions to prevent and reduce obesity in AI/AN people. There is a lack of research proven obesity prevention and treatment approaches that public health professionals can utilize when planning their programs. IHS must blaze a new trail into unknown territory in order to address the escalating obesity and diabetes rates. Previous versions of this indicator have focused on pilot demonstrations in partnership with Head Start and Indian sites in the NIH, National Heart Lung and Blood Pathways obesity prevention study of elementary school children. The redirection of this indicator for FY 2002 and FY 2003 is based on new research findings and the growing realization that obesity reduction and prevention represents a large systems challenge for virtually all Indian communities in all age groups and thus warrants a more global system-wide focus to effectively address.

Obesity is prevalent among AI/AN people of all ages and is increasing significantly in a growing number of communities. Obesity is an important risk factor for cardiovascular disease and diabetes, two of the largest health problems for the AI/AN population in terms of mortality, morbidity, quality of life, and resources required to address. Unfortunately, success in reducing the prevalence of obesity and diabetes on a population basis has not been consistently documented. Evidence supports that children who are obese beyond infancy are at risk for elevated circulating serum insulin, which may be a precursor to the development of type 2 diabetes later in life.

Breastfeeding is emerging as an important factor in childhood obesity. Recently published studies of Pima Indians and also of Bavarian children show that breastfeeding for at least two months is associated with a statistically significant protection from obesity in early childhood. It

has also been demonstrated that obese older children are more likely to become obese adults. Current interventions focus on lifestyle changes for adults. Primary prevention and earlier intervention will instead focus on lifestyle development for infants and children.

To address the escalating obesity and diabetes rates, the IHS has collaborated with Head Start in developing a Head Start-IHS obesity prevention project entitled "Healthy Children, Healthy Families, Healthy Communities" that began in early 1999 with a "Future Search Conference" of stakeholders to begin planning the program with the broadest input. The initiative promotes community mobilization and partnerships between AI/AN Head Start grantee programs, IHS and tribal health programs, and community organizations. Despite the fact that these community-based projects receive no direct funding, the level of community participation and ownership thus far have been impressive. Although the measurable impact of these projects' interventions on the reduction of obesity and type 2 diabetes is probably several years away, evaluation of the processes used to mobilize and raise community awareness are ongoing and an important source of learning. The IHS intends to diffuse information on the "lessons learned" from the intervention strategies and community mobilization efforts implemented by these pilot sites. Each site will monitor progress by assessing basic factors such as increased physical activity, improved nutrition and community participation.

Offering hope that a rapid rise in diabetes can be reversed, the findings from the Diabetes Prevention Program (DPP), a major NIH-NIDDK clinical trial comparing diet and exercise treatment to treatment with Metformin in adults with impaired glucose tolerance, found that even modest lifestyle changes – eating less fat, exercising 30 minutes a day, and losing a moderate amount of weight – cut the incidence of diabetes by more than half among those most at risk. Participants randomly assigned to intensive lifestyle intervention reduced their risk of developing type 2 diabetes by 58 percent. On average, this group maintained their physical activity at 30 minutes per day, usually with walking, and lost 5-7 percent of their body weight (an average of 15 pounds), using a low fat diet with moderate calories (1200-1800/day).

Four American Indian Centers were included in this study: Zuni Pueblo of New Mexico; Navajo Nation in Shiprock, New Mexico; Gila River Indian Community, Sacaton, Arizona;, and Salt River Pima-Maricopa Indian Community , Scottsdale, Arizona. The IHS will assemble a work group to address dissemination of the exciting DPP findings to AI/AN communities, explore translation of the research lifestyle protocols to clinical and public health I/T/U settings, identify elements for successful approaches to weight loss and maintenance of desired weight (could include focus groups and key informant interviews with American Indian study participants and investigators).

Collectively, these findings suggest a need for the IHS to compile and diffuse a comprehensive and multidisciplinary series of approaches to address obesity in all age groups using technologies that have demonstrated effectiveness. To accomplish this will require the pooling of resources and talents of programs currently addressing diet and nutrition, diabetes prevention, physical fitness, cardiovascular disease prevention, and community empowerment. AI/AN communities will need to expand partnerships with tribal nations to collect and report obesity prevalence data, "best practices" approaches to addressing obesity prevention and treatment, and thus will require

enhanced IT capacity for collection of clinical and community-wide approaches that work at the tribal level.

Approach: The approach to this revised indicator for FY 2002 includes the formation of an Indian Obesity Prevention and Treatment Planning Group made up of I/T/U staff, other IHS stakeholders, and outside experts from NIH, CDC, or other organizations to develop the three elements of the plan. Activities to complete this process for each element include:

Formation of the Obesity Prevention and Treatment Planning Group

- National Planning Group Meetings, and Regional/Area Meetings (first one occurred September 11, 2001, for Albuquerque Area). IHS National Nutrition Program, Epidemiology Program, and Diabetes Program work in partnership with I/T/U, other DHHS agencies, and with Epi Center contractor(s) to develop plan. Identify strategies to overcome barriers at I/T/U communities in obesity prevention and treatment, and identify best practices

Developing Data Collection Capacity

- Obtain ht/wt data from selected age groups
- Review Special Diabetes Program for Indians (SDPI) questionnaire data specific to obesity categories
- Review SDPI compendium reports for obesity prevention, treatment, management patterns and trends.

Developing the Infrastructure for Collection and Diffusing Information

- identify programs addressing obesity prevention
- review the SDPI grant questionnaires and compendium for best practice and disseminate to the I/T/Us

A major effort will be made to integrate partnerships and coalitions with other HHS OPDIVs, particularly CDC, NIH, and AHRQ to support this project. The goal will be to complete and submit the plan to the IHS Leadership Council, Tribes, and urban and tribal organizations by the end of FY 2002.

In FY 2003, the IHS will complete the national pediatric height/weight survey with comparisons to the IHS National Survey conducted in 1990-1991; identification of best practices in obesity prevention and treatment through regional meetings, reports, key informant interviews, focus groups; dissemination of best practices and research findings through "plain English" reports to tribal communities on website, Health for Native Life magazine, The IHS Provider, and conferences/trainings held at local, area, and national sites. The IHS will also explore innovative strategies for obesity prevention and control, including pharmacotherapies, complementary medicine, traditional spiritual healing approaches, surgical treatment of obesity, as well as lifestyle and behavioral therapies at individual, family, and community levels. Formation of the Obesity Prevention and Treatment Planning Group will include quarterly meetings with a corresponding report and an annual planning report.

Data Source: CDC Pediatric Nutrition Surveillance System (PDNSS), IHS RPMS system, consumer surveys, focus groups, observational surveys, and rates of participation. 

Type of Indicator: Process and Balanced Scorecard: innovation and learning

Linkages: This indicator is part of a long-term effort to reduce obesity and supports the DHHS Strategic Plan, Strategic Objectives 1.3 *Improve the Diet and the Level of Physical Activity of Americans*, 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services.* This objective also directly supports the HP 2010 objectives addressing Focus Area 22: Physical Activity and Fitness and Focus Area 19: Nutrition and Overweight and will require significant collaboration between IHS, CDC, WIC, and Head Start.

Program Performance: This FY 2001 indicator committed to maintaining ongoing body mass index (BMI) assessments in AI/AN children 3-5 years old and/or 8-10 years old, for both intervention pilot sites and non-intervention comparison sites, as part of an overall assessment of the ongoing childhood obesity prevention project's effectiveness. This indicator was accomplished. The pilot sites and non-intervention sites maintain routine health assessments for 3-5 year old participants that include height and weight measurements. One site additionally has height and weight data for participants age 0-3 years. However, this data has not been aggregated. Pre-intervention preliminary data from 2 of the five pilot sites has been collected. At a mid-western site, preliminary data indicates 27% (23) of these children were above the 95th percentile for weight for height. At a southwestern site, preliminary data indicates 18% (17) of the children were above the 95th percentile for weight for height. The Data from non-intervention sites has been collected and has not yet been submitted and aggregated. Data from RPMS is substituted with the understanding it may be replaced with non-intervention data. In 1997, 32% of 3-5 year olds (convenience sample of 3,417 clinic visits) were overweight. Weight status of children may vary among tribal groups.

Indicator 30: By the end of 2003, the IHS and its stakeholders will develop a five-year plan for tobacco control in AI/AN communities.

Rationale: The use of tobacco represents the second largest cause of preventable deaths for AI/AN people. Smoking rates in many AI/AN communities are almost twice the national average. The Indian Health Service has not yet addressed the tobacco problem with a specific action plan or budget request. Because tobacco has a unique status among many AI/AN tribes as a sacred plant, any plan for control activities must have significant input from AI/AN community leaders.

Approach: This indicator calls for the IHS and its stakeholders (I/T/U and outside the Indian health system) to build on the knowledge and strategies gained from the six CDC-funded, community-based AI/AN Tobacco Control Support Centers to consider appropriate roles and actions that IHS should take in support of a comprehensive plan for tobacco use and reduction in the AI/AN population. A work group will be convened in 2002 to develop the initial draft of this plan. This group will include representation from the Support Centers, I/T/U staff and other stakeholders. In particular, the CDC Office of Smoking and Health will be invited to participate. Before the end of FY 2003, recommendations made by the workgroup will be presented to IHS

senior leadership and to the National Indian leadership organizations for further refinement and anticipated implementation in FY 2004.

Data Source: IHS Program records.

Type of Indicator: Process

Linkages: This indicator supports the Secretary's initiative to reduce tobacco use, and the DHHS Strategic Plan, Strategic Objectives 1.1 *Reduce Tobacco Use, Especially among Youth* 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by an IHS/CDC agreement, and supports several HP 2010 objectives in Focus Area 27: Tobacco Use.

Program Performance: The FY 2001 performance indicator committed to assuring that at least five regional tobacco control centers are available to assist the AI/AN health facilities and organizations with tobacco prevention and cessation activities by the end of FY 2001.

The intent of the indicator was to address the tobacco problem among AI/AN populations by beginning at the tribal and community level, especially recognizing the special status and uses of tobacco in these populations. The Tribal Support Centers work directly with tribal populations in different regions of Indian country. The indicator was completely met and exceeded. Seven tribal support centers were established with the following organizations:

- Aberdeen Area Tribal Chairmen's Health Board, based in Aberdeen, South Dakota, provides services and activities for 18 tribes located in the states of North Dakota, South Dakota, Iowa and Nebraska.
- Alaska Native Health Board, based in Anchorage, Alaska, provide services for +200 native villages throughout Alaska.
- California Rural Indian Health Board, based in Sacramento, California, provides outreach to 33 of the 40 tribes located in northern California.
- Inter-tribal Council of Arizona, based in Phoenix, Arizona, provides services to 19 tribes in Arizona.
- Inter-tribal Council of Michigan, based in Sault Saint Marie, Michigan, provides outreach to 12 tribes in Michigan.
- Muscogee Creek Nation, based in Okmulgee, OK, address the tobacco control needs of tribal members and non-tribal members (approx. 160,000) who utilize its healthcare facilities.
- Northwest Portland Area Indian Health Board, based in Portland, OR, provides services to +40 tribes located in the states of Washington, Oregon, and Idaho.

These organizations are currently in their second year of a five-year funding project from the Office on Smoking and Health, Centers for Disease Control. Their purpose is to build capacity and infrastructure at the tribal level for tobacco control and prevention. Thus far, the assistance provided to tribes include: training and technical assistance, partnership building, education/awareness, and policy development.

HIV/AIDS Group:

The following two indicators address improving surveillance of HIV/AIDS and the implementation of risk reduction counseling with the long-term goal of reducing the spread of HIV infection in the AI/AN population.

Indicator 31: During FY 2003, maintain ongoing surveillance of HIV/AIDS and establish baselines for completeness of reporting in at least 2 additional Areas.

Rationale: The purpose of this indicator is to assure accurate and complete data on the burden of HIV infection and AIDS among American Indians and Alaska Natives, which are critically needed to plan for resource mobilization and allocation, and to guide and evaluate intervention programs to prevent HIV transmission. The Indian Health Service maintains service data that include HIV and AIDS diagnoses, and providers submit this information to the HIV/AIDS surveillance programs of the appropriate State Health Departments, from which they are then sent to CDC. A cumulative total of 742 HIV infections and 2,132 AIDS cases among AI/ANs had been reported to CDC as of December 31, 1999 (CDC. HIV/AIDS Surveillance Report, 1997 Year-End Edition, Vol. 9, No.2). Reported AIDS cases among AI/AN have increased 10% per year from 1997 to 1999 (CDC. HIV/AIDS Surveillance Report, 1999 Year-End Edition, Vol. 11, No.2).

Data analyzed for FY 2000 indicated that incompleteness of case reporting and misclassification of race/ethnicity contributed to underestimation of the burden of HIV and AIDS in AI/AN communities. Because FY 2000 data were found to not accurately describe the HIV/AIDS epidemic among American Indians and Alaska Natives, beginning with the FY 2001 indicator, we have revised our approach to reflect the need to increase the completeness of case reporting. This approach is designed to measure the increasing ability to accurately track HIV/AIDS spread within the AI/AN population.

Approach: Completeness of surveillance data is to be evaluated by matching IHS RPMS data with HIV/AIDS surveillance data collected by State Health Departments/CDC. With adherence to standards for protection of confidentiality, records of persons diagnosed with HIV or AIDS will be abstracted from the RPMS data system and sent to the appropriate State Health Department for matching with the HIV/AIDS data system, to determine whether the cases have been reported.

Data Source: IHS RPMS; State and CDC HIV/AIDS Surveillance Systems

Type of Indicator: Process and Balanced Scorecard: innovation and learning

Linkages: This indicator is changed from FY 2001 and supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by IHS/CDC agreements, and supports several HP 2010 "HIV Infection" and "Surveillance and Data" objectives.

Program Performance: The FY 2001 indicator committed to developing an approach for HIV/AIDS surveillance and establish a baseline for completeness of reporting in one IHS Area. This measure was partially met. Neither IHS nor tribally run clinics currently conduct independent surveillance for HIV. State surveillance is the sole source of information on trends in HIV infection among American Indians, and this information is used to plan prevention strategies and to attract and allocate treatment and prevention resources. Mobilizing an effective public health response to HIV/AIDS will thus depend in large part on the performance of state surveillance systems (particularly their representativeness and completeness).

This indicator is intended to address IHS/Tribal/Urban participation in surveillance activities, and has been only partially met because an approach to surveillance is still being developed. Part one of the effort to develop an approach to surveillance, consisting of a systems analysis of case reporting from IHS facilities to State Health Departments, has been completed. This investigation has shown that concern about maintenance of confidentiality is a major obstacle to documentation of HIV infection in paper and electronic medical records, and may impede the reporting of cases to State Health Departments. Possible solutions to address this issue will be explored. A plan has been proposed for part two of the effort to develop an approach to surveillance, consisting of a systems analysis of tribal and urban facilities' participation in case reporting.

Assessment of the completeness of HIV/AIDS surveillance data for American Indians and Alaska Natives is important because surveillance data are used to ensure that adequate resources are allocated for the public health response to HIV/AIDS. To establish a baseline, completeness of reporting was evaluated in 1 of 12 IHS Service Areas by investigating whether IHS HIV/AIDS cases had been reported to the State Health Department. The electronic databases were searched for all health facilities in the Service Area. The search included data from Jan. 1980 through Mar. 2000, and targeted all ICD-9-CM codes associated with HIV infection and AIDS. It was designed to identify all those with HIV infection, living or dead, since both would be included in the State Health Department database.

With adherence to standards for protection of confidentiality, records of persons diagnosed with HIV or AIDS were abstracted from the RPMS data system and sent to the appropriate State Health Department for matching with the HIV/AIDS data system, to determine whether the cases had been reported. Data were verified and validated through manual chart reviews. Of 124 reportable IHS cases identified through the search of electronic medical records, 121 (98%) had been appropriately reported to the State Health Department. One limitation of this investigation was that tribally run facilities did not participate. Nevertheless, the results indicate that 98% completeness is an achievable benchmark. It is expected that completeness will vary from place to place, therefore there are plans to repeat this investigation in 2 additional areas.

Support for this measure was from IHS, through a nonrenewable award from the Secretary's Emergency Fund; in-kind support was provided by the Centers for Disease Control and Prevention, through assignment of personnel to the IHS National Epidemiology Program. Funding will be needed (in addition to this in-kind support from CDC) to conduct the systems analysis of HIV/AIDS case reporting from tribally run facilities in the next fiscal year.

Indicator 32: During FY 2003, increase the percentage of high risk sexually active persons who have been tested for HIV and received risk reduction counseling at least 5% above the FY 2002 level.

Rationale: The purpose of this indicator is to reduce the spread of HIV infection in AI/AN communities. The benefits of early knowledge of HIV serostatus are greater now than at any time during the epidemic. For HIV-infected persons, highly active antiretroviral therapy has improved dramatically the quality and duration of life and may reduce the risk for transmission by decreasing viral load (Palella FJ, Delaney KM, Moorman AC. Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. N Engl J Med 1998;338:853--60; .Gupta P, Mellors J, Kingsley L, et al. High viral load in semen of human immunodeficiency virus type 1infected men at all stages of disease and its reduction by therapy with protease and nonnucleoside reverse transcriptase inhibitors. J Virol 1997;71:6271--5; Vernazza PL, Gilliam BL, Flepp M, et al. Effect of antiviral treatment on shedding of HIV-1 in semen. AIDS1997;11:1249--54.). Reduced HIV transmission also can occur because many infected persons may reduce sexual risk behavior after HIV-infection diagnosis (Denning P, Nakashima A, Wortley P, the SHAS Project Group. High-risk sexual behaviors among HIV-infected adolescents and young adults [Abstract]. In: Program and Abstracts of the 6th Conference on Retroviruses and Opportunistic Infections. Chicago, Illinois: Foundation for Retrovirology and Human Health, 1999.). In addition, monitoring the burden of HIV/AIDS among American Indians and Alaska Natives depends ultimately on the diagnosis of infections through testing of high-risk individuals. Therefore, to support prevention efforts and to improve monitoring of the spread of HIV/AIDS, the Indian Health Service is working to increase availability and access to voluntary and confidential HIV diagnostic testing by constituents who do not know their HIV status, link them to care and prevention services, and assist them in adhering to treatment regimens and in sustaining risk reduction behavior. The percentage of high-risk persons who have received an HIV test is thus a critical indicator, and was added as a new indicator for FY 2001 to establish a baseline with the FY 2002 version designed to measure the expansion of HIV testing and counseling.

Approach: A baseline will be established in FY 2001 through implementation of a web-based surveillance enhancement software in selected IHS facilities. This software will query the RPMS system to determine the percentage of STD patients tested for HIV in IHS facilities. The web-based system will be used again in FY 2002 and the results compared with the FY 2001 baseline measure.

This indicator was changed for FY 2002 from increasing the overall percentage of persons tested and provided risk reduction counseling to obtaining baseline measures of persons tested and provided risk reduction counseling in at least six IHS Areas. The change was made because analysis of available data indicated that HIV testing rates among high risk persons are not obtainable everywhere given the existing data infrastructure, in which laboratory codes for HIV testing and testing HIV positive have not yet been standardized. To address this, a procedure is being developed for extraction from key IHS RPMS data files and mapping to a standard set of codes, so that data aggregation is possible in the future. However, until a generalizable procedure is developed, this project is proceeding on a facility-by-facility basis (as each facility

has some codes that are unique).

Data Source: ID Web, a web-based surveillance enhancement software.

Type of Indicator: Impact/Outcome and Balanced Scorecard: innovation and learning

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives*, and 5.1 *Improve Public Health Systems' Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It is supported by IHS/CDC agreements, and supports several HP 2010 "HIV Infection" and "Surveillance and Data" objectives.

Program Performance: The FY 2001 performance indicator committed to obtaining a baseline measure of the percentage of high-risk sexually active persons who know their HIV status and have received risk reduction counseling, from a sample of IHS facilities. This measure was partially met. The purpose of this indicator is to reflect efforts to reduce the spread of HIV infection among the AI/AN population served by IHS. Increasing the proportion of high risk individuals who know their status has several public health benefits. Individuals who know their HIV serostatus can receive HIV prevention messages that fit their particular set of circumstances, an approach that has been found more effective than one-size-fits-all prevention counseling. In addition, monitoring the trends and spread of HIV/AIDS among American Indians and Alaska Natives depends ultimately on the diagnosis of infections through testing of high-risk individuals. Therefore, to support prevention efforts and to improve monitoring of the spread of HIV/AIDS, the Indian Health Service is working to increase availability and access to voluntary and confidential HIV diagnostic testing by high risk clients who do not know their HIV status, link them to care and prevention services, and assist them in adhering to treatment regimens and in sustaining risk reduction behavior. The percentages of high-risk persons who have received an HIV test and risk reduction counseling is thus a critical indicator.

This measure was partially met because preliminary data is available only for 2 facilities (one large, one small) from 1 Service Unit in 1 of 12 Service Areas, and the data have yet to be verified and validated. In 2001, a web-based surveillance enhancement software began to be piloted in selected IHS facilities. This software queries the RPMS system to determine the percentage of sexually transmitted disease (STD) patients tested for HIV and the percentage of patients newly diagnosed with an STD or HIV who received risk reduction counseling in IHS facilities. If a patient was seen more than once in a time period, his/her status at the last visit in the time period was used. In the two facilities with available preliminary data, a total of 645 patients were diagnosed with gonorrhea, chlamydia or syphilis from January to November 2001. Of these 645 high risk patients, 124 (19%) were tested for HIV within 30 days of their first STD test. In the same period, of 698 patients who were newly diagnosed with any of the above sexually transmitted infections or HIV, 47 (6%) received risk reduction counseling within 14 days of their diagnosis. These data should be interpreted with caution, because the low percentages may reflect data quality or capture issues, rather than actual program performance.

Forty-seven percent of the budget for development of the web-based system supporting this measure was IHS funding, obtained through a one-time award from the Secretary’s Emergency

Fund. The remainder of the funding was contributed by the National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention. To continue this project into the next fiscal year, other sources of funding will be needed to replace the amount awarded from the Secretary's Emergency Fund.

Environmental Surveillance Indicator:

Indicator 33: During FY 2003, the IHS will increase the number of active tribal user accounts for the automated Web-based environmental health surveillance system by 15% over the FY 2002 level for American Indian and Alaska Native tribes not currently receiving direct environmental health services.

Rationale: This indicator is directed at reducing environmental threats to health by collecting community information for decision-making. Community environmental health status has traditionally been determined by completing environmental health surveys of individual facilities listed on the Facility Data System (FDS) inventory. Current changes in data collection methodology and technological advances have made it possible for FDS data to be collected in near-real time allowing for more detailed and frequent data analysis.

Due to the change to an automated Web-based environmental health data collection system, it has been decided to change the GPRA indicator beginning in FY 2002 to match this methodology and to better align achievable goals with measurable results. This change will support more consistent assessment of community environmental health services by building a more comprehensive dataset to analyze and use to determine direction. Ultimately this change will support setting specific targets for reducing environmental threats across I/T/U settings.

In order to collect a more complete set of data it is necessary to have the participation of American Indian and Alaska Native tribes to add to the data and verify the accuracy of FDS elements that are not part of the Indian Health Service. This additional data should provide a more comprehensive look into the community elements that are deemed as critical elements by the participating tribal community and provide insight as to what that community views as successful environmental health services.

Approach: The Environmental Health Services program will utilize the Web-based Environmental Health Reporting System (WebEHRS) in conjunction with Tribal partners to collect community and facility information to be used for ongoing surveillance. At the regional level, this project will be coordinated with the IHS Area Environmental Health Officers in partnership with the tribes and local IHS Environmental Health Services programs.

The collection, organization, and implementation of environmental health and epidemiological data may redesign the services and activities currently provided by and recommended by the Environmental Health Services program. Data analysis is necessary to establish baseline levels of community environmental health, evaluate the effectiveness of existing programs and to plan future programs to insure that resources and activities are best targeted to most effectively reduce

environmentally related disease and injury at the local level. Although there are no funds earmarked for this project, it can be continued utilizing the currently proposed budget.

Data Source: Data will be gathered using the current Web-based Environmental Health Reporting System (WebEHRS) developed in FY 2000 and implemented in FY 2001. The success of this indicator will be calculated by the percentage of tribes that are actively participating in the system by the end of the Fiscal Year. Of the approximately 70 eligible tribes, none are currently using the system, but all IHS area offices and field staff are.

Type of Indicator: Process and Balanced Scorecard: internal perspective

Linkages: This indicator is an extension of FY 2000 Indicator 26. It supports the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives,* and 5.1 *Improve Public Health Systems Capacity to Monitor the Health Status and Identify Threats to the Health of the Nation's Population.* It also broadly supports many of the HP 2010 objectives in Focus Area 8: Environmental Health.

Program Performance: The FY 2001 indicator committed to complete field-testing of the protocol and implementation plan for an environmental health surveillance system and conduct environmental assessments in 15% of American Indian and Alaska Native communities. This indicator was not met as originally described because the Division of Environmental Health Services redirected efforts during the year to take advantage of emerging technology, staffing changes, and changing program needs. As a result, the alternative environmental health surveillance system that was developed under this indicator represents a more significant accomplishment than the originally proposed indicator and system. This contention is based on the fact that this new approach was implemented nationally within the IHS system during FY 2001 and will serve as a platform to expand the quantity and quality environmental health surveillance capacity for many years.

The intent of the indicator was to develop a data system for tribal and IHS programs to identify and reduce environmentally related health hazards. Merging this intent with internal interest and capacity in IT applications, the Division of Environmental Health developed and implemented WebEHRS, www.webehrs.hqe.ihs.gov, a web-based bottom up driven environmental health data and field support system. Field-based users enter data about their community from a set of standard data fields. They also have the option to add local descriptive information about their facilities such as: digital photos, contact information, reports, and other supplemental information. The data fields consist of environmental health related facilities and services found in American Indian and Alaskan Native communities. The WebEHRS database is maintained on an IHS-HQE based server. The data and associated files are aggregated and available for analysis and reporting by users on successively higher levels.

Implementation of WebEHRS was phased in throughout the year. A key component to the implementation of WebEHRS was the addition of a Staff Environmental Health Officer with web data base expertise to coordinate the initiative from HQE. A WebEHRS Coordinator was identified in each IHS Area. The Area coordinator was provided training and technical assistance in the use of WebEHRS. The Area coordinator then provided WebEHRS training and

assistance to staff in their Area. A deadline was established for the coordinator to implement the system in their Area and a target was set to have all data updated into the system by the end of FY 2001.

By the end of FY 2001 WebEHRS was implemented in 100% of the IHS Environmental Health programs. There are currently 175 WebEHRS users and 19,052 community-based environmental health facilities and services tracked through the system. WebEHRS provides these programs a valuable tool to assess their environmental health workload, and plan and monitor their program activities to meet the public health problems experienced in the American Indian and Alaskan Native communities they serve.

WebEHRS will be expanded to tribal Environmental Health Programs in FY 2002 and 2003. Beyond FY 2003, additional environmental health risk factors and indicators will be added to the system. Data from WebEHRS will be shared with tribal leaders and the public through a web site that presents tribal specific environmental health profiles from WebEHRS collected data and supplementary data sets.

2.2.1 Capital Programming/Infrastructure Category: Program Description, Context and Summary of Performance

Program Description and Context

Capital Programming/Infrastructure indicators represent the physical infrastructure that contributes to a healthy environment by assuring safe water and sewage facilities, medical facilities where health services can be adequately provided, and the ability to maintain the medical facilities that are critical to our mission.

Sanitation Facilities Construction – supports the construction of water, sewage, and solid waste systems (see page IHF-15 in FY 2003 budget document).

Health Care Facilities Construction – supports the construction of new or replacement health care facilities (see page IHF- 21 in FY 2003 budget document).

Maintenance and Improvement – supports ongoing health care facility maintenance, alteration, and repair **(**see page IHF-11 in FY 2003 budget document).

2.2.2 Capital Programming /Infrastructure: Performance Indicators

These indicators were selected and based on the following criteria:

- supports components of the Indian Health Facilities Appropriation and funding priorities of I/T/Us identified in the budget formulation process
- are supported by existing data systems that record the need for physical infrastructure or improvements to the existing infrastructure
- follows the formula-based prioritization of each project's relative need
- has demonstrable link to improved access to health services or healthier living environments

The data that support these indicators are recorded at the local level where projects are conceptualized based in strict protocols and formulas. These data are compiled at the Area and Headquarters level and reviewed for accuracy and then compared against similar projects. The validation and verification of this information is essential to the facilities programs since it is used to distribute resources as well as measure performance. The link between funding levels and our ability to accomplish these indicators is relatively direct and supported by well-quantified and validated planning formulas.

These indicators support many of the Departmental and IHS areas of focus by providing a foundation where health services can be effectively delivered and objectives reached. Without a healthy living environment, access to safe medical facilities, and proper maintenance most of the objectives could not be met.

Performance Summary Table 3:
Capital Programming/Infrastructure

Performance Indicator	FY Targets	Actual Performance	Reference
Capital Programming/Infrastructure Group			
Indicator 34: Address the net backlog of essential maintenance, improvement, and renovation (BEMAR) needs for health care facilities.	**FY 03:** indicator discontinued **FY 02:** indicator discontinued **FY 01:** address $12 million of FY 2000 BEMAR **FY 00:** address $12 million of FY 1999 BEMAR **FY 99**: maintain backlog at $243 million	**FY 03:** **FY 02:** **FY 01:** addressed $12 million of FY 2000 BEMAR **FY 00:** $12 million addressed **FY 99:** backlog maintained at $243 based on FY 1997 formula **FY 98:** $243 million baseline	**P:** p. 128 **B:** p. IHF-11
Indicator 35: Provide sanitation facilities to new or like-new homes and existing Indian homes.	**FY 03:** 3,800 New/L. New 11,455 Existing Total 15,255 **FY 02:** 2,528 New/L. New 12,727 Existing Total 15,255 **FY 01:** 3,800 New/L. New 10,930 Existing Total 14,730 **FY 00:** 3,740 New/L. New 11,035 Existing Total 14,775 **FY 99:** 5,900 New/L. New 9,330 Existing Total 15,230	**FY 03:** **FY 02:** **FY 01:** 3,551 New/L. New 14,451 Existing Total 18,002 **FY 00:** 3,886 New/L. New 14,490 Existing Total 18,376 **FY 99:** 3,557 New/L. New 13,014 Existing Total 16,571	**P:** p. 128 **B:** p. IHF-15

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 36: Improve access to health care by construction of the approved new health care facilities.	**FY 03:** complete scheduled phase of construction of appropriated facilities **FY 02:** complete scheduled phase of construction of appropriated facilities **FY 01:** complete scheduled phase of construction of appropriated facilities **FY 00:** complete scheduled phase of construction of appropriated facilities **FY 99:** complete scheduled phase of construction of appropriated facilities	**FY 03:** **FY 02:** **FY 01:** 5 of 7 projects completed on schedule **FY 00:** 5 of 6 projects completed on schedule **FY 99:** all projects completed on schedule	**P:** p. 130 **B:** p. IHF-21
Total Capital Programming/ Infrastructure Funding:	**FY 03: $406,233,000*** **FY 02:** $414,427,000* **FY 01:** $404,742,000* **FY 00:** $277,303,000 **FY 99:** $255,953,000 **FY 98:** $221,009,000 * includes 15% of M/M and PI, Quarters Collections and accrual costs		**P:** page # in perform. plan **B:** page # in budget justif.

FY 2003 Indicators

Capital Programming /Infrastructure Group:

Indicator 34: The indicator addressing the Backlog of Essential Maintenance, Alteration, and Repair (BEMAR) for health care facilities has been discontinued for FY 2002 and FY 2003 until a stronger performance-based measure is developed.

Program Performance: The FY 2001 performance measure was to address $12 million of the FY 2001 Backlog of Essential Maintenance, Alterations, and Repair (BEMAR) for health care facilities.

The FY 2001 BEMAR was reported as $442 million; the FY 2002 BEMER is reported as $485 million. During FY 2001, an estimated $12 million in M&I funds were allocated to projects that would reduce the BEMAR, meeting the FY 2001 goal. Increased emphasis on facility condition surveys and inclusion of more buildings has generated a large number of additions to the BEMAR during FY 2001, resulting in the net increase to the BEMAR.

In FY 2000 the Facilities Database System began the process of separately logging additions and completed tasks. Since new tasks are continually added into the database, this logging will enable IHS to separate out the specific value of tasks added and completed. This process has been partially implemented. Until this process is fully operational, only the net change to the total database can be determined.

Indicator 35: During FY 2003, provide sanitation facilities projects to 15,255 Indian homes (estimated 3,800 new or like-new homes and 11,455 existing homes) with water, sewage disposal, and/or solid waste facilities.

Rationale: This indicator directly supports improved environmental health for AI/AN people. The IHS Sanitation Facilities Construction Program, an integral component of the IHS disease prevention activity, has carried out those authorities since 1960 using funds appropriated for Sanitation Facilities Construction and contributed funds from Tribes and other Federal agencies (for the past five years contributions have ranged from $30 to 45 million) to provide potable water and waste disposal facilities for American Indian and Alaska Native (AI/AN) people. As a result, the rates for infant mortality, gastroenteritis morbidity, and other environmentally related diseases have been dramatically reduced, as much as 80 percent since 1973. Compelling evidence supports that many of these health status improvements are attributable to IHS' provision of water supplies, sewage disposal facilities, development of solid waste sites, and provision of technical assistance to Indian water and sewer utility organizations. Satisfactory environmental conditions (e.g., safe piped water and adequate sewage disposal) place fewer demands on IHS' primary health care delivery system. However, AI/AN homes are still seven times more likely to be without clean water than homes in the broader U.S. with most of these homes located in geographically isolated areas, particularly Alaska and the Navajo Reservation.

Approach: This program regularly updates the needs for sanitation facilities based on the Indian Health Care Improvement Amendments (Title II, Section 302(g) 1 and 2 of P.L. 100-713). From this process, a backlog of needed sanitation facilities to serve existing homes is identified and updated annually. Based on the end-of-year FY 2001 estimates, the cost of technically and economically feasible projects to correct these needs for existing homes was $876 million out of a total need of $1.606 billion. It is considered feasible to provide sanitation facilities for between 95 and 98 percent of all existing Indian homes. Maximum health benefits will be realized by addressing needs identified and providing facilities for new/like new homes when they are constructed.

Data Source: The SFC Sanitation Deficiency System (SDS), and Project Data System (PDS).

Type of Indicator: Impact and Balance Scorecard: internal perspective

Linkages: These indicators support the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services* and several of the HP 2010 objectives in Focus Area 8: Environmental Health.

Program Performance: The FY 2001 performance measure was to provide sanitation facilities to 3,800 new or like-new homes and 10,930 existing Indian homes by the end of FY 2001. This measure indicates the number of homes served with water, sewer and solid waste facilities, which has been shown to be directly related to an improvement of public health. In FY 2001 the IHS provided sanitation facilities to 3,551 new and like-new homes and 14,451 existing homes for a total of 18,002. These exceeded the total goal of providing sanitation facilities for 14,730 homes. This significant increase in existing homes was the result of funding more projects to upgrade existing community sanitation facilities infrastructure. In addition to the $94 million appropriated for this program, others contributed approximately $44 million. Since FY 1996, IHS has received from $30 million to $44 million from outside contributors. IHS will continue to work cooperatively with Tribes to attract funds from outside IHS to construct needed sanitation facilities.

The reported data is based on Project Data System (PDS) information that is updated twice per year by all 12 IHS Area Offices, for projects funded in FY 2001. These data include projects funded for construction under the P.L. 86-121 Sanitation Facilities Construction program that were managed directly by IHS and through tribal contracts and compacts. The data also includes projects that were funded partially or wholly by entities other than IHS.

Contributions from sources outside the IHS is an indication of the confidence other agencies and the tribes have in its ability to identify needs and effectively provide water, sewer and solid waste services. The IHS took the initiative in developing the Sanitation Deficiency System (SDS) in 1990, and continues to update it annually with tribal consultation. This data system is used by IHS as well as many other agencies to identify and serve sanitation needs of AI/AN homes and communities. The IHS SFC program is increasing its collaborative work with other agencies at all levels, including current efforts to improve fund transfer mechanisms, joint environmental review processes, and tribal community planning capacities.

Indicator 36: During FY 2003, increase the modern health care delivery system to improve access and efficiency of health care by construction of the following health care facilities:

Inpatient:

Ft. Defiance, AZ – continue construction of staff quarters associated with new replacement hospital.

Winnebago, NE – continue construction of the replacement hospital.

Outpatient:

Pinon, AZ – continue construction of the new health center, including supporting staff quarters.

Red Mesa, AZ – continue construction of a new health center, including supporting staff quarters.

Pawnee, OK – continue construction of a replacement health center.

St. Paul, AK – continue construction of a replacement tribal health center, including supporting staff quarters.

Rationale: This indicator supports the replacement of health care facilities to increase access to personal medical services supported by the IHS. These medical services can be compared to medical services available to the general population (appointments to see primary care physicians, nurses, dentists, etc.). Efficient space for health care delivery allows for more appointments, and for patients to see more health care providers in one trip. People are reluctant to use old run-down facilities, but are more likely to seek needed health care when provided in modern facilities. Although accessible is synonymous in this usage with obtainable health care services, the IHS can demonstrate that workloads have increased or more comprehensive services are provided. The Northern Navajo Medical Center (inpatient facility) in Shiprock, New Mexico, is an example where the planned workload in 1995 for this facility was 101,572 and in 1999 the workload was 117,764. Another example is Wagner Health Center (outpatient facility) in South Dakota, where the planned workload in 1991 for this facility was 16,656 and in 1999 the workload was 19,551. In the examples given, the measure of access is overall workload while the types of health services that are offered may be as important as the overall availability of health services, depending on the circumstances. These issues are addressed individually in the Program Justification Documents (PJDs) for each planned facility.

Likewise, modern facilities help recruit and retain health care providers, which, in turn, can result in improved access and continuity of health care. Once a replacement facility has been completed and fully staffed, the IHS has experienced an average increase in patient visits of approximately 60% over the old facility. The planning and designing of additional facilities is

the first step in improving access for identified locations.

Where private sector housing is not available for the increased staffing levels, additional staff quarters are needed for non-local staff in support of the identified IHS health care facilities.

Approach: The IHS developed the Health Facilities Construction Priority System (HFCPS) methodology in response to Congressional directive to identify planning, design, construction, and renovation needs for the 10 top-priority inpatient care facilities and the 10 top-priority outpatient care facilities and to submit those needs through the President to the Congress. Under the three-phase HFCPS process, the IHS Headquarters solicits proposals for facility construction from the IHS Area Offices and ranks them according to their relative need for construction. Factors used to determine relative need are workload, existing facility age, isolation (availability of alternatives sources of care), and existing space data. The highest-ranking proposals are added to the Priority Lists. When new projects are to be added to the Priority Lists, IHS Headquarters asks each IHS Area Office to submit proposals for Phase I consideration. The IHS uses the HFCPS methodology to review these proposals and to determine which will be considered during the more intensive Phase II review. A limited number of proposals, that successfully complete Phase I, are considered further during Phase II. The IHS examines these proposals in greater detail and applies the methodology to determine the proposals that will be considered during Phase III. During Phase III, applicable IHS Area Offices prepare a PJD for each proposed project still being considered. IHS Headquarters reviews each PJD. If the PJD justifies construction, it is approved and the project is placed on the appropriate priority list below those already on the list.

Likewise for staff quarters projects, in response to the same Congressional directive, the IHS has developed the Quarters Construction Priority System (QCPS) to identify staff quarters projects to support existing health care facilities. (Note, staff quarters associated with replacement health care facilities are part of those projects and are not processed under the QCPS.) Like the HFCPS, quarters projects are processed through three phases and new staff quarters projects are added to the Quarters Priority List as Program Justification Documents for Staff Quarters (PJDQ) are approved.

Proposed projects that have been approved and placed on the respective priority list remain on the list until they have been fully funded by Congressional appropriations or other funding mechanism. After projects are placed on the Priority Lists, IHS updates its five-year planned construction budget. That budget is updated yearly and is used as the basis for funding requests.

The HFCPS and QCPS are generally applied using existing IHS resources (staff and equipment); however, some IHS Area Offices have procured assistance in developing the PJD, PJDQ, Program of Requirements (POR), and Program of Requirements for Staff Quarters (PORQ).

Data Source: The HFCPS and QCPS generate projects that are reflected in a five-year funding plan in the Health Care Facilities Planned Construction Budget. The IHS Inpatient, Outpatient and Quarters Priority Lists are used to show the needed construction priorities.

Type of Indicator: Process/Impact and Balance Scorecard: internal perspective

Linkages: These indicators support the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives* and 4.2 *Reduce Disparities in the Receipt of Quality Health Care Services* and generally, many of the HP 2010 objectives in Focus Area 1: Access to Quality Health Services.

Program Performance: The FY 2001 performance indicator was:

Indicator 36: Improve critically needed access to health care services by providing the following physical infrastructure:

Hospitals:	
Ft. Defiance, AZ Hospital	Continue construction of the replacement hospital and start design of part of the staff quarters.
Winnebago, NE Hospital	Continue construction of the replacement hospital.
Outpatient Care Facilities:	
Parker, AZ Health Center	Complete construction of the replacement health center.
Pawnee, OK Health Center	Complete design of the replacement health center.
Staff Quarters:	
Bethel, AK	
Joint Venture Projects	Provide equipment for tribally constructed projects.
Small Ambulatory Construction Grants	Provide construction grants to tribes/tribal organizations.
Dental Units	Provide dental units based on priority needs.

The program goals were met, except for the Joint Venture Construction Program (JVCP) and the Small Ambulatory Program (SAP). Because FY 2001 was the first year that funding was provided for these two programs, the process and criteria for rating applicants for the funding had to be established. The multi-year allowance on health care facilities construction appropriation allowed the IHS to obtain a comprehensive review and consultation on the criteria before the solicitation of applications occurred. For the FY 2001 JVCP, tribes were selected for participation and equipment funding will be provided to these tribes after the joint venture agreements have been executed in FY 2002. For the FY 2001 SAP, proposals have been received and scored, and funds will be provided to selected applicants in FY 2002 after P.L. 93-638 contracts have been negotiated. Once these follow-on actions are completed, all program goals will be met, and these actions will not affect future targets.

2.3.1 Partnerships, Consultation, Core Functions, and Advocacy Category: Program Description, Context and Summary Performance

Program Description and Context

The Partnerships, Consultation, Core Functions, and Advocacy aggregation encompasses the IHS' administrative and management functions, relationships with stakeholders and consumers, and strategies for collaboration in pursuit of the IHS mission. Data for these indicators come from recognized sources including budget reports and audits, a HHS survey, and a survey of the universe of stakeholders using recognized social survey methods. The two components of this aggregation are:

Partnerships, Consultation, Core Functions, and Advocacy Category Aggregation

Direct Operations - supports management and administrative functions for Area and Headquarters staff including policy development, budget formulation, health program support, and accountability requirements (see page IHS-129 in FY 2003 budget document).

Facilities and Environmental Health Support - provides administrative and management support for the construction, maintenance, and operation of health care facilities, staff housing, and sanitation facilities (see page IHF-33 in FY 2003 budget document).

2.3.2 Partnerships, Consultation, Core Functions, and Advocacy Category: Performance Indicators

The choice of indicators for this aggregation category are based on the following criteria:

- supports and encourages tribal sovereignty, the government to government relationship between tribes and the Federal government, and tribal self-determination
- supports and encourages collaboration with stakeholders, agencies, and organizations directed toward improving the health of AI/AN people
- supports and encourages sound management practices

Achieving these performance indicators, as well as the overall coordination of the GPRA and other Federal accountability requirements represent a significant challenge for the IHS and its reduced management and public health infrastructure. The reorganization of Headquarters and many Area offices has resulted in flatter organizational structures, less specialization in function, and greater use of self-directed teams in order to increase efficiency. However, it has become increasingly clear that coupled with improved data management capacity, there are two functions that must be supported to assure overall program success and these are:

- assuring that continued and expanded opportunities for tribal consultation and participation in IHS endeavors is supported
- assuring effective recruitment of needed health disciplines is achieved and that orientation, training, and support are available to enhance the retention these staff.

Performance Summary Table 4:
Consultation, Partnerships, Core Functions, and Advocacy Indicators

Performance Indicator	FY Targets	Actual Performance	Reference
Consultation Improvement Indicator			
Indicator 37: Improve the level of I/T/U satisfaction with the processes for consultation and participation provided by the IHS, as measured by a survey of I/T/Us.	**FY 03:** 5% increase over baseline **FY 02:** secure OMB clearance for instrument and baseline **FY 01:** implement policy and submit instrument **FY 00:** revise policy and instrument **FY 99:** establish policy and collect baseline	**FY 03:** **FY 02:** **FY 01:** policy implemented and instrument submitted **FY 00:** revised policy proposed and instrument developed **FY 99:** policy established but baseline delayed	**P:** p. 136 **B:** p. IHS-129
Administrative Efficiency, Effectiveness, and Accountability Group			
Indicator 38: Improve the level of Contract Health Service (CHS) procurement of inpatient and outpatient hospital services for routinely used providers under contracts or rate quote agreements at the IHS-wide reporting level.	**FY 03:** +1% over FY 02 **FY 02:** 88% **FY 01:** 79% **FY 00:** no indicator **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 9/03 **FY 00:** **FY 99:** 86% **FY 97:** 74%	**P:** p. 137 **B:** p. IHS-129
Indicator 39: Maintain administrative infrastructure (Area and Headquarters) no higher than FY 1999 target level while maintaining full compliance with major Federal requirements (i.e., GPRA, GMRA, ITMRA, etc.).	**FY 03:** assess pub. health infrastructure for HQ and 6 Areas **FY 02:** no indicator **FY 01:** no indicator **FY 00:** 1876 FTE or less **FY 99:** at least 10% under FY 97 level or 1876 FTE	**FY 03:** **FY 02:** **FY 01:** **FY 00:** 1,569 FTE **FY 99:** -22% (1,619 FTE) **FY 97:** 2085 FTE baseline	**P:** p. 140 **B:** p. IHS-129
Indicator 40: Continue implementation of Managerial Cost Accounting systems across IHS settings.	**FY 03:** expand IT capability **FY 02:** expand IT capability **FY 01:** expand IT capability **FY 00:** continue implementation & develop pilot sites **FY 99:** begin implementation	**FY 03:** **FY 02:** **FY 01:** IT capacity expanded **FY 00**: implementation continued but pilots sites not developed **FY 99:** "cost centers" implemented in FY 1999	**P:** p. 141 **B:** p. IHS-129

Performance Indicator	FY Targets	Actual Performance	Reference
Indicator 41: Increase the proportion of I/T/Us who have implemented Hospital and Clinic Compliance Plans to assure that claims meet the rules, regulations, and medical necessity guidance for Medicare and Medicaid payment.	**FY 03:** improve 10% over FY 02 baseline **FY 02:** no indicator **FY 01:** no indicator	**FY 03:** **FY 02** **FY 01:**	**P:** p. 142 **B:** p. IHS-129
Indicator 42: Support the Tribal Self-Determination through technical assistance and application of the IHS Contract Support Cost Policy.	**Technical Assistance** **FY 03:** 100% of new tribes **FY 02:** 100% of new tribes **FY 01:** develop protocol **Contract Support Cost Review** **FY 03:** 100% use of protocol for new tribes **FY 02:** secure tribal acceptance **FY 01:** develop protocol **FY 00:** no indicator **FY 99:** no indicator	 **FY 03:** **FY 02:** **FY 01:** **FY 03:** **FY 02:** **FY 01:** protocol developed	**P:** p. 143 **B:** p. IHS-129
Quality of Work Life and Staff Retention Group			
Indicator 43: The IHS will improve its overall Human Resource Management (HRM) Index score as measured by the DHHS annual HRM survey.	**FY 03:** +one point over FY 02 **FY 02:** +one point over FY 01* **FY 01:** at least 97 points **FY 00:** at least 94 points **FY 99:** no indicator	**FY 03:** **FY 02:** **FY 01:** 96 points **FY 00:** 96 points **FY 99:** 93 points **FY 98:** 93 points baseline **FY 97:** 92 points	**P:** p. 145 **B:** p. IHS-129 p. IHF-195 * indicates revised FY 2002 measure, see Summary of Changes Table on pages 153-159.
Indicator 44: Improve retention of I/T/U health care providers.	**FY 03:** identify nurse retention problems and develop plan **FY 02**: no indicator **FY 01:** no indicator	**FY 03:** **FY 02:** **FY 01:**	**P:** p. 146 **B:** p. IHS-129 p. IHS-35
Total Consultation, Partnerships, Core Functions, and Advocacy Funding:	**FY 03: $89,907,000*** **FY 02:** $88,523,000* **FY 01:** $84,484,000* **FY 00:** $72,884,000 **FY 99:** $69,729,000 **FY 98:** $67,038,000 *includes accrual costs		**P:** page # in perform. plan **B:** page # in budget justif.

FY 2003 Partnerships, Consultation, Core Functions, and Advocacy Indicators

Consultation Improvement Indicator:

Indicator 37: During FY 2003, the IHS will improve stakeholder satisfaction with the IHS consultation process by 5% over the FY 2002 baseline.

Rationale: The purpose of this indicator is to improve the consultation process with IHS stakeholders. It is fundamental to the realization of the IHS Mission and Goal that I/T/Us increasingly become participating partners in the important processes that will guide the Agency into the next century. Given the number and diversity of I/T/Us, formal policies are essential to assure broad input, a rational and equitable approach to making timely decisions, and the highest possible buy-in across I/T/Us. Equally important is securing the data to assess how well the processes are actually working, and then improving them. In addition, this indicator serves as a proxy measure of the effectiveness of the IHS Tribal Management Program. Finally, during the initial reorganization of the IHS in 1995-96, the IHS was encouraged by its stakeholders to assure opportunities for local I/T/Us to evaluate the agency's progress in enhancing the consultation process and supporting recommended changes.

Approach: It is critical that the IHS form a strong and effective partnership with its I/T/U constituents in addressing health disparities. This partnership is essential to ensure that resources are effectively and efficiently utilized to maximize the positive impact health programs have on the target I/T/U populations. Partnerships already exist with such tribal entities as the National Indian Health Board (NIHB), the Tribal Self-Governance Advisory Committee (TSGAC) and the National Congress of American Indians (NCAI).

The starting point for this activity was with the development and implementation of the IHS consultation policy and was to be followed by the development of a survey instrument to assess I/T/U satisfaction with the consultation process. This policy was actually developed ahead of schedule and was in effect at the start of FY 1999. In addition, a survey instrument was developed and tested in the spring of FY 1999. This survey instrument was to be used in FY 1999 to establish a baseline and was to be accomplished by several tribal and AI/AN organizations. However, concerns about how the consultation process was being implemented refocused the attention of the I/T/U stakeholders on revising the policy to address specific consultation processes and new and anticipated legislative changes. As a result the collection of data was delayed pending the revision of the policy by a team that included the I/T/U stakeholders.

The IHS elected to honor our stakeholder's preferences and support the revision of the consultation policy/process during FY 2000. However, the process of attempting to integrate the variety of strategies for revising the existing consultation policy proposed by stakeholder groups resulted in a delay in the overall process. It was anticipated that during FY 2001, the IHS would implement a revised policy and prepare a revised instrument for clearance as required by the Paperwork Reduction Act. For FY 2002, it is anticipated that this clearance will be completed

and a baseline score will be compiled and a follow-up survey in FY 2003 will be run to assess improvements.

Data Source: I/T/U survey instrument and protocol.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objectives 3.6 Improve the Health Status of American Indians and Alaska Natives and 4.3 Increase Consumer's Understanding of their Health Care Options. It also underpins the IHS'commitment supporting the Self-Determination process and AI/AN community empowerment.

Program Performance: The FY 2001 performance indicator stated that the IHS will implement a revised policy and prepare a revised instrument for clearance as required by the Paperwork Reduction Act. The IHS met this indicator in the following manner. On September 21, 2001, the IHS adopted a revised Tribal Consultation and Participation Policy (IHS Circular No. 2001-07). Additionally, the IHS developed a revised survey instrument during FY 2001 and published in the Federal Register (October 17, 2001) a Request for Public Comment on the proposed collection of data concerning stakeholder satisfaction with IHS tribal consultation.

Administrative Efficiency, Effectiveness, and Accountability Group:

This group of indicators addresses the improvement of administrative functions that support the improvement of health care efficiency and effectiveness, as well as improved agency accountability.

> **Indicator 38: During the FY 2003 reporting period, the IHS will have improved the level of Contract Health Services (CHS) procurement of inpatient and outpatient hospital services for routinely used providers to at least 1% over the FY 2002 level of the total dollars paid to contract providers or rate quote agreements at the IHS-wide reporting level.**

Rationale: It is important that IHS optimize its use of CHS resources. The CHS regulations require the use of medical priorities to assure that persons with the most urgent need receive services and that alternate resources pay prior to IHS expending funds. Beyond these built-in requirements, IHS is making efforts to assure that we receive the best price available from our routine providers of care. To that end, we are seeking to ensure that contracts or rate quote agreements are in place that provide reduced rates to IHS and its patients with routinely used hospitals. The CHS program wants to ensure that it can meet the indicator before increasing the percentage to something that may be unrealistic.

While not every routinely used hospital will agree to some reduced rate schedule with IHS, many will, and it is to our advantage to continue to aggressively pursue cost-effective arrangements. It should be noted that IHS might never be able to reach 100 percent because the majority of our facilities are in rural settings. Many times there is only one hospital in the vicinity and they are unwilling to offer discounted rates to the IHS.

Approach: It is not feasible to pursue contracts or agreements with every hospital that provides services to IHS patients. Some hospitals are utilized on a one-time emergency basis when it is impossible for the patient to be moved to a contract facility, or when there is no contract facility in the vicinity. In other cases, the utilization of the facility is so infrequent that it is impractical to contract with that facility for a small number of patient visits per year. Therefore, IHS is only interested in obtaining contracts or rate quote agreements with frequently used providers. As providers determine that agreements are feasible with the IHS, the percentage should increase.

Frequently used hospitals are defined as those facilities to which IHS paid more than $50,000 for inpatient services per year and/or more than $10,000 in outpatient services per year. Not all hospitals meet both criteria, and inpatient and outpatient service contracts and rate quotes will be tracked separately. Those facilities that IHS paid for catastrophic services will be adjusted to further develop valid data on payments for patient services. Changes are made to reflect the calculation based on using amount paid; and large amounts related to CHEF cases need to be adjusted from the calculation process for contracts and rate quote agreements. Adjustments are made of earlier percentages reported to be consistent with the changes due to providers who have opted out of CMS managed care plans.

To calculate the percentage rate we divide the amount paid to frequently used hospital providers with contracts or rate quote agreements, by the amount paid to all frequently used hospital providers, with an adjustment for catastrophic services. The IHS fiscal intermediary (FI), who makes IHS' CHS payments, will provide these amounts. The FI also maintains information on contract and rate quote agreements and applies the contract or agreement rate to the payment. The FI maintains records by individual provider and composite data can be provided.

Data Source: The IHS contracts with Blue Cross and Blue Shield of New Mexico for FI services. The FI collects the claims data and maintains the IHS/CHS database. The IHS will use FY 1999 claims paid data as the baseline because data for this year are 99 percent complete. The IHS is the payor of last resort, which means any alternate resource available to the patient must be billed first. It typically takes 2 years for claims data to become complete for a fiscal year. As the FY data becomes complete, the percent of providers under contract within the thresholds stated above will be updated in the GPRA Performance Report annually. Listed below are some of the assumptions made in analyzing the data:

1. All inpatient and outpatient claims for hospital services, processed by the FI for the reporting year, defined as the Purchase Order Fiscal Year (POFY), are eligible.
2. Providers are considered under contract if there is a number in the contract field and an effective date for appropriate reporting year. This includes regular contracts and Rate Quotes.
3. Payments were defined as contract or open market at a claim level. If any charge on a claim was paid at a contract rate, the claim is considered a contract payment. If all charges on a claim were paid at open market (i.e., paid at billed charges), the claim is considered open market.
4. The provider number used to determine the total paid for the POFY is defined as the provider's base EIN. This is a 9-digit provider EIN/TIN, and includes all suffixes assigned to that EIN.

5. Under IHS regulations, certain catastrophic cases are eligible for Catastrophic Health Emergency Fund (CHEF). These cases often involve emergencies or the need for specialized providers, which may be out of the area. The area may have little control over which providers these patients see. The CHEF threshold is $20,800 for an episode of care for FY 2001. To simply target inpatient claims that could be CHEF eligible, data was run excluding any inpatient claim where IHS paid $20,800 or more.
6. Outpatient providers were included if they were paid $10,000 or more under contract and/or open market. Inpatient providers were included if they were paid $50,000 or more under contract and/or open market.

The percent of dollars paid under contract is calculated as follows:

$$\frac{\text{IHS payments to contract providers}}{\text{Total IHS paid dollars to providers meeting thresholds}}$$

When comparing a complete fiscal year of data to a partial year a comparison study showed a 3% drop in the overall percentage. The CHS program wants to be modest in its approach to any increase because of the following changes that could affect the percentages for future years:

- Some Area Offices have done a good job in negotiating provider contracts, the CHS program will determine the successfulness of these Area Offices and begin to implement these new strategies for provider contract negotiations in Areas where assistance may be needed.
- As the study discussed above shows as the data becomes more complete there is at least a 3% drop in the overall percentage.

Type of Indicator: Process

Linkages: These indicators support the DHHS Strategic Plan, Strategic Objectives 3.6 *Improve the Health Status of American Indians and Alaska Natives* the accountability requirements of a DHHS OPDIV, and support H P 2010 objectives in Focus Area 1: Access to Quality Health Services.

Program Performance: Purchase Order Fiscal Year 2001 claims data is used in the calculation and is only 79% complete as of December 2001. Typically it takes 2 years for claims data to complete processing through the Fiscal Intermediary (FI). It is estimated that FY 2001 data will become complete by September 30, 2002.

Indicator 39: By the end of FY 2003, the IHS will have completed a systematic assessment of the public health infrastructure for Headquarters and six of the Area Offices.

Rationale: The purpose of this indicator is to assure a systematic and rational process be utilized in assessing public health performance to support plans for further reorganization of the

IHS. This indicator serves to address the directive given by OMB for the FY 2003 Performance Plan to include a performance measure as a baseline for reducing management layers and organizational streamlining. The IHS has already engaged in considerable reorganization that has included delayering and streamlining over the past six years. This new indicator commits IHS to evaluate our current delivery of essential public health and related administrative services to AI/AN populations. The predecessor of this indicator for FY 1999 and FY 2000 committed to reducing and then maintaining the public health and administrative infrastructure at IHS Headquarters and Area Offices while maintaining full compliance with accountability requirements. This indicator was discontinued in FY 2001 and FY 2002 because of the growing awareness that increasing accountability requirements were making any further reductions in Area or Headquarters staff a potential compromise to our mission.

To review the recent history of IHS reorganization activities: in 1995 a group of stakeholders were charged by the IHS Director to develop a plan to reorganize the IHS to provide a smaller, more efficient administrative infrastructure. While some downsizing of Headquarters and Areas actually began in FY 1994 by lapsing vacated positions, the formal implementation of the reorganization plan began in FY 1996 and was focused on supporting the theme of "patient care comes first" and has resulted in Headquarters reducing from ten major offices into three and from 111 functional components to 38. This reorganization also resulted in a Headquarters FTE reduction from the high of 937 FTEs in 1993 to 379 in FY 2000, or a 60 percent reduction. Similarly, IHS Area Offices have reduced from 2,705 FTEs in FY 1993 to 1,190 in FY 2000 for a 56 percent reduction. During this same time period, staff at the local health care delivery level increased from 11,752 FTEs to 13,086, for an overall increase of 11 percent.

Given the magnitude of these organizational changes, the IHS believes that it is prudent to systematically assess the delivery of public health services to its client population using established assessment tools. This approach can provide a rational basis for public health planning, including workforce and organizational changes in the IHS.

Approach: The CDC's National Public Health Performance Standards Program (NPHPSP) represents a significant partnership effort with the nation's major public health organizations to develop performance standards for public health practice as defined by the nationally recognized "Ten Essential Services of Public Health" and develop corresponding comprehensive performance measurement tools to improve public health practice at all levels. The NPHPSP has tested and validated the assessment process with state and local public health programs over the past two years with very positive ratings of the value of the process to public health programs and is now considered by many to be the best available approach to benchmarking public health programs.

Working in collaboration with the CDC, the IHS is adapting the existing assessment instruments and protocols into the IHS context to assess the status of the IHS public health infrastructure and available alternative sources that support local I/T/U programs. In addition, a process will be developed and integrated into the assessment to address the capacity to accomplish essential Federal administrative functions. Ultimately this process will serve as a major information base for workforce planning/human capital development and organizational restructuring.

The IHS workgroup has already met with CDC staff as well as other stakeholders in the NPHPSP and is beginning the process of adapting the assessment instruments into the IHS context. We will begin pretesting in FY 2001 and will begin actual assessments by late FY 2002.

Data Source: The data for determining this indicator will be derived from the adapted survey instruments that will assess public health and administrative infrastructure at IHS Headquarters and Area Offices (including Tribal Epidemiology Centers). The indicator will be considered accomplished if IHS Headquarters and 6 of 12 Area Offices will have been formally assessed using the adapted protocol and instruments by the end of FY 2003.

Type of Indicator: Process

Linkages: These indicators support the DHHS Strategic Plan, Strategic Objectives 3.6 Improve the Health Status of American Indians and Alaska Natives, 4.2 Reduce Disparities in the Receipt of Quality Health Care Services, Goal 5 Improve the Nation's Public Health Systems, and the accountability requirements of a DHHS OPDIV. It also supports the OMB directive on organizational streamlining and delayering**.**

Program Performance: No FY 2001 indicator

Indicator 40: During FY 2003, the IHS will continue to expand Managerial Cost Accounting (MCA) capacity through an incremental investment in necessary information technology in accord with DHHS and OMB guidance.

Rationale: The Federal Financial Management Improvement Act of 1996 (The Brown Bill) requires IHS to achieve the linkage of resources to results through MCA. This legislation requires each agency to maintain financial management systems that comply with Federal financial management systems requirements, applicable Federal accounting standards, and the U.S. Standard General Ledger at the transaction level. As mentioned in the *Program Aggregation* section on page 42, caution must be exercised in applying manufacturing accounting approaches to a comprehensive public health program. Attempting to cost account for outcomes for complex chronic disease processes (i.e., diabetes) addressed by many health disciplines in diverse settings, with long time lags in effect, is plagued with threats to validity, and would probably represent an exercise in futility.

Approach: The IHS is analyzing technical alternatives for IHS cost accounting/cost reporting, including a detailed analysis of technical alternatives with cost benefit and trade off analyses. The results will be provided to a partnering group of agency and departmental staff to support strategic decision making regarding the development and implementation of cost accounting at IHS to link resources to results and to generate agency cost reports. While cost reports represent only an incremental step toward full cost accounting, they have required that the IHS:

- Improve accounting for capital costs for facilities and equipment
- Improve accounting for inpatient versus outpatient cost for physician, physician extender and nursing

- Improve overall accounting practices with an emphasis towards improved use of cost centers

.

The ongoing development of this system is necessary to assist IHS leadership in maximizing the effective use of available resources and ensure that patient care can be provided to its customers. Towards this end, the Indian Health Service is evaluating various systems that will link patient and financial data - Health Data Manager, an automated patient record and an improved version of the Registration & Patient Management System (RPMS).

Type of Indicator: Process

Linkages: This indicator supports the management and accountability requirements of GPRA, GMRA, Clinger-Cohen and a DHHS OPDIV.

Program Performance: The FY 2001 performance indicator committed to expanding managerial cost accounting (MCA) capacity through the investment in necessary information technology in accord with DHHS and OMB guidance. This was accomplished. During FY 2001, the Indian Health Service began testing of Health Data Manager, which is an integrated clinical and financial data package. The system was tested at one site in FY 2001, but, if the test goes well, it is expected that the test will be expanded to several more sites in FY 2002.

Work also began on a customized clinical encounter form that will lead to an electronic medical record and electronic claims submission, pharmacy point of sale, electronic funds transfer lock-box for payments and automated posting of remittance advices. With the investment of FY 2001, it is anticipated that some of the infrastructure will be in place for future years' developments.

Indicator 41: By the end of FY 2003, the IHS will increase by 10% over the FY 2002 level the proportion of I/T/Us who have implemented Hospital and Clinic Compliance Plans to assure that claims meet the rules, regulations, and medical necessity guidance for Medicare and Medicaid payment.

Rationale: By law IHS has been given the authority to bill and collect reimbursement from the Medicare and Medicaid (M&M) programs, per Title XXVIII and XIX of the Social Security Act. These dollars are used to maintain compliance with the Joint Commission on Accreditation of Healthcare Organizations in order to maintain accreditation, and to maintain current level of services. In order to receive payments for services rendered, bills must be submitted to M&M fiscal intermediaries. All bills must be supported by medical record for provider documentation, medical necessity and coded accurately for billing in order to comply with the rules and regulations of the M&M programs. Hospital and Clinic Compliance Plans set up policy and procedures that help insure that claims that are generated by our facilities meet the rules and regulations and medical necessity for payment purposes. These policies and procedures work to prevent fraud, waste and abuse so prevalent in the health care industry.

Approach: In 2000, the IHS had an initial kick off training on compliance plan development and a request was made by the IHS Director to develop plans at all of our facilities. In early FY 2002, a survey will be provided to Areas asking how many of their facilities have compliance

plans adopted by their respective Governing Boards and which facilities have draft plans. A draft plan is one not yet adopted. In addition, Areas and Service Unit hospital and clinics will be required to submit copies of audits and corrective actions plans for further HQs analysis. Key criteria include status of plan development and implementation and analysis of any external third party audits on compliance with the rules and regulations of Medicare and Medicaid for reimbursement.

Data Source: The data source will be a survey provided by HQs to the SUs through the Area Office. This information will be tabulated by HQs and shared with Areas/SUs through its management control tracking system.

Type of Indicator: Process and outcome

Linkages: This indicator supports the OMB directive to reduce erroneous payments to beneficiaries and other recipients of government fund.

Program Performance: No FY 2001 Indicator.

Indicator 42: During FY 2003, the IHS will support the efficient, effective and equitable transfer of management of health programs to tribes submitting proposals or letters of intent to contract or compact IHS programs under the Indian Self-Determination Act by:

a. providing technical assistance to all tribes (100%) submitting proposals or letters of intent based on identified areas of need and with specific technical assistance in the area of calculating contract support costs.

b. reviewing all initial contract support cost requests submitted (100%) using a IHS Contract Support Cost Policy Review Protocol to assure the application of consistent standards in order to assure equitable and approvable requests.

Rationale: The amount of funding appropriated for contract support costs has increased significantly in the last five years and has grown to approximately $270 million. The Congress and the Office of Management and Budget have requested that the Indian Health Service continue to review the soundness of its allocation policies concerning contract support costs and to take steps to assure that contract support costs provided to tribes are reasonable and do not duplicate other funding provided to tribes by the IHS under self-determination agreements. The provision of technical assistance to tribes and review of Contract Support Cost requests that is consistent with the IHS Contract Support Cost Policy and the Indian Self-Determination Act will address the concerns of the Congress and the OMB.

Approach: During FY 2002, the IHS will complete the development of protocols (i.e. review standards) and obtain their acceptance by appropriate Agency officials and tribal leadership. In FY 2003, The IHS will orient and train staff on the new protocols that will be utilized in the review of contract support cost requests from contracting and compacting tribes. Verification that protocols are being used will be documented in the Annual Funding Agreements that are

approved, and signed, by tribes and the IHS. In the long run, success will be reflected in the greater number of requests that are technically accurate and consistent with the Indian Self-Determination Act and the IHS Contract Support Cost Policy.

It is expected that after implementation of the review protocols there will be minimal appeals to the Agency concerning the results of CSC negotiations between the tribes and the IHS.

Data Source: CSC Requests and Signed Annual Funding Agreements.

Type of Indicator: Process

Linkages: This indicator supports the DHHS Strategic Plan, Strategic Objective 3.6 Improve the Health Status of American Indians and Alaska Natives and the Indian Self-Determination and Educational Assistance Act and the OMB directive to reduce erroneous payments to beneficiaries and other recipients of government funds.

Program Performance: During FY 2001, the IHS Headquarters and Area staff and tribal stakeholders began the development of protocols (i.e. review standards) for systematically identifying technical assistance needs and reviewing the contract support cost requests of contracting and compacting tribes.

Program Performance: The FY 2001 performance indicator committed to support the efficient, effective and equitable transfer of management of health programs to tribes submitting proposals or letters of intent to contract or compact IHS programs under the Indian Self-Determination Act by:

a. developing a technical assistance "needs assessment" protocol for systematically identifying the technical assistance needs of new compacting and contracting Tribes.
a. develop a Contract Support Cost Review Protocol for systematically and consistently applying the IHS Contract Support Cost Policy to all initial contract support cost requests.

This was accomplished. During FY 2001, the IHS Headquarters and Area staff and tribal stakeholders began the development of protocols (i.e. review standards) for systematically identifying technical assistance needs and reviewing the contract support cost requests of contracting and compacting tribes.

Quality of Work Life and Staff Retention Group:

These two indicators address improving the quality of work life for all disciplines across IHS settings and improving the retention of nurses at local I/T/Us.

> **Indicator 43: For FY 2003, the IHS will improve its overall Human Resource Management (HRM) Index score to at least one point above the FY 2002 level as measured by the DHHS annual HRM survey.**

Rationale: The purpose of this indicator is to improve the quality of work life for IHS employees. The DHHS quality of work life project is based on social-psychological principles that are associated with both organizational effectiveness and improved quality of life for members. As part of this effort, the Department has developed and refined a Human Resource Management (HRM) Index employee survey as a valid measure of management practices that are important to organizational performance. These practices include Morale, Climate for Innovation, Planning and Organization, Communication, and Operational Efficiency. Since the DHHS started conducting the HRM Index surveys in 1991, the IHS sample scores have consistently averaged below the overall average DHHS score which is normalized/adjusted each year to be 100 points. Thus, OPDIV scores below 100 are below the average and visa versa. Given that the elements assessed in this survey are fundamental to achieving the IHS Mission and Goal, the Agency is committed to improving this trend.

Approach: The IHS is now in the process of actively tailoring the implementation of the Department's quality of work life project to its unique and diverse setting. Furthermore, efforts are under way to identify strategies to improve supporting functions such as training, organizational development, and improved communications networks. It is important to acknowledge that customer satisfaction is also a strong determinant of the quality of work life for health care providers. When consumer demand increasingly exceeds the capacity of the health care system to provide services, waiting times can become excessive, services are more restricted, and consumers are more likely to be disgruntled. The result of this pattern, which has been a reality in the IHS in recent years, is often more pressure and demands on providers that lowers their quality of work life and compounds the problem of retaining and recruiting health care staff. Thus, many other indicators in this plan that address access to services are critical to improving the quality of work life for IHS employees.

Data Source: FY 2002 DHHS HRM Survey

Type of Indicator: Process/Impact and Balance Scorecard: internal perspective

Linkages: This indicator directly supports the Department's Quality of Work Life project and generally supports the DHHS Strategic Plan, Strategic Objective 3.6 *Improve the Health Status of American Indians and Alaska Natives*.

Program Performance: In FY 2001 performance goal was to improve the IHS HRM Index score to at least 97 and this goal was not met with a FY 2001 score remaining at 96 as it was in FY 2000. This lack of progress is attributed to continued high vacancy rates for health care providers in many clinical settings putting considerable strain on current IHS staff. Indicator 44 which follows is representative of current activities direct at addressing the retention of a diversity of health care providers.

Indicator 44: During FY2003, the IHS will systematically work to improve nurse retention rates by:

a. **Implementing the National Council of Nurses Recruitment and Retention Plan in all IHS Areas and Headquarters.**
b. **Assessing vacancy, turnover and retention rates using the position reports to identify those locations where nursing vacancy and retention rates are most problematic.**

Rationale: The purpose of this indicator is to reduce nursing vacancy rates at the local I/T/U clinical setting and ultimately improve the quality of care. The current number of nurse positions in I/T/U programs is approximately over 3950. The vacancy rate for nurses is currently at an average of 15%, with a range of 8-35% at individual facilities. This equates to more than 300 vacant positions at any given time. Although, a systematic process for the collection and analysis of recruitment and retention rates is in the early stages, it is anticipated that the current retention rate is low and the turnover rate is high at many I/T/U facilities. Baseline data for both turnover and retention rates needs to be developed. Retention of well-oriented, skilled nursing staff can decrease the cost of hiring and orienting new staff. It is estimated that the educational and training cost of hiring a new nurse costs $7,500 to $10,000 per nurse. A nation-wide nursing shortage exists at the current time. This will affect the ability of I/T/Us to recruit nurses. The current nursing shortage makes it even more imperative that we retain the nurses we currently employ, providing a potential for significant cost savings and improved quality of nursing and overall health care.

Approach: The IHS will utilize nurse position reports to establish current vacancy, turnover and retention rates, as well as establish a baseline retention rate for FY2002. A Nursing Recruitment and Retention Survey was completed in 1998 and 1999. The National Council of Nurses has developed an executive summary of the results of these surveys and will implement a retention plan to address the top twenty (20) reasons nurses leave I/T/U programs (dissatisfies). In addition, a formal plan to expand, support, and enforce the top twenty (20) satisfiers will be established and implemented. During FY 2002, exit interviews and staff satisfaction surveys will be developed and a process will be identified for analysis of the data collected, collaboratively with the Office of Management Services, Division of Human Resources and implemented at the local service unit level by the Personnel Officers. Once analyzed, a plan of action will be developed to address the results of the data collection.

Data Source: 1998/1999 Recruitment and Retention Survey; internal nurse vacancy reports; Exit Interviews; and Staff Satisfaction Surveys.

Type of Indicator: Process and Balance Scorecard: internal perspective

Linkages: This indicator directly supports the Department's Quality of Work Life project and generally supports the DHHS Strategic Plan, Strategic Objective 3.6 Improve the Health Status of American Indians and Alaska Natives.

Program Performance: No FY 2000 or 2001 indicator.